MegaPower® CPU

ADMPCPU

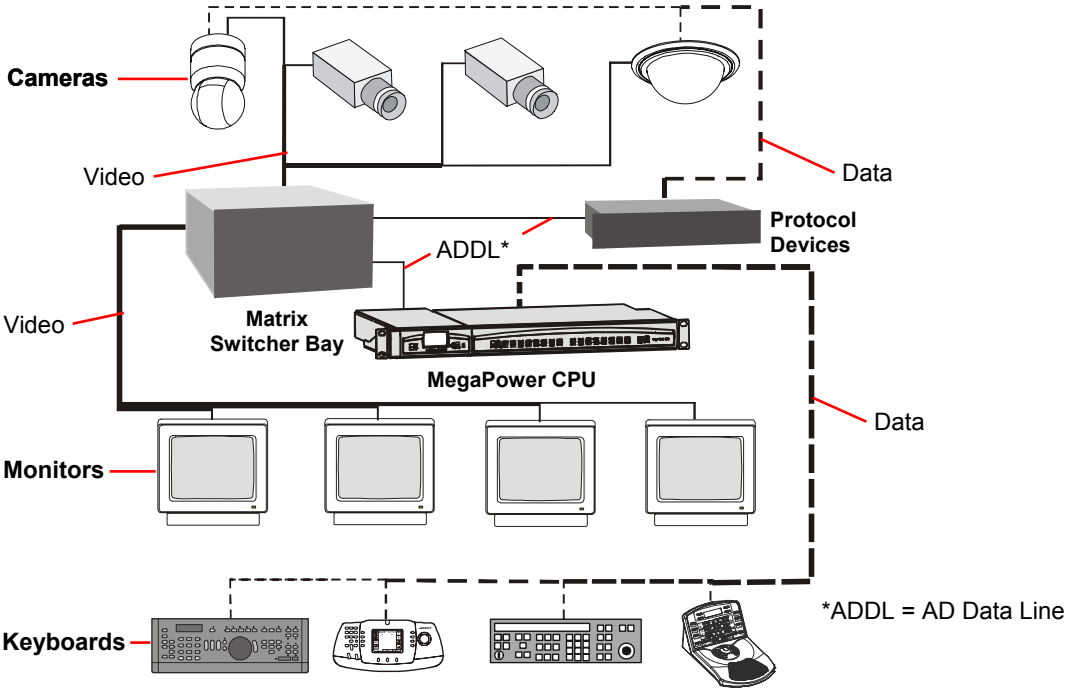
Administrator's Guide

8200-0421-03 G

MegaPower® CPU

Administrator's Guide

Figure 1. MegaPower 3200 Video-Matrix Closed-Circuit Television (CCTV) System



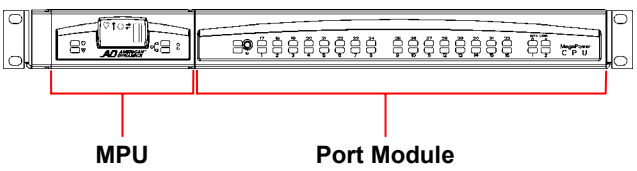
About the Product

The MegaPower CPU (Central Processing Unit) is the control unit for the MegaPower 3200 video-matrix closed-circuit television (CCTV) system. It enables the setup and control of cameras, monitors, users, alarms, video recording, and data communications.

The MegaPower CPU (Figure 2) consists of the following major components:

- MPU (Multiple Purpose Unit)
- Port Module

Figure 2. MegaPower CPU



About this Guide

This Administrator's Guide provides information about setting up and programming the MegaPower 3200 video-matrix CCTV system. Other related documents are:

- Installation Guide, 8200-0421-01
- Operator's Guide, 8200-0421-02
- CPU Activity Log Client Installation and Operation Guide, 8200-0421-09
- AD1024 S^3 System Setup Software Installation & Operating Manual, 8000-1821-01

If you need assistance...

Contact Technical Support.

© 2009 Sensormatic Electronics Corp.

Contents

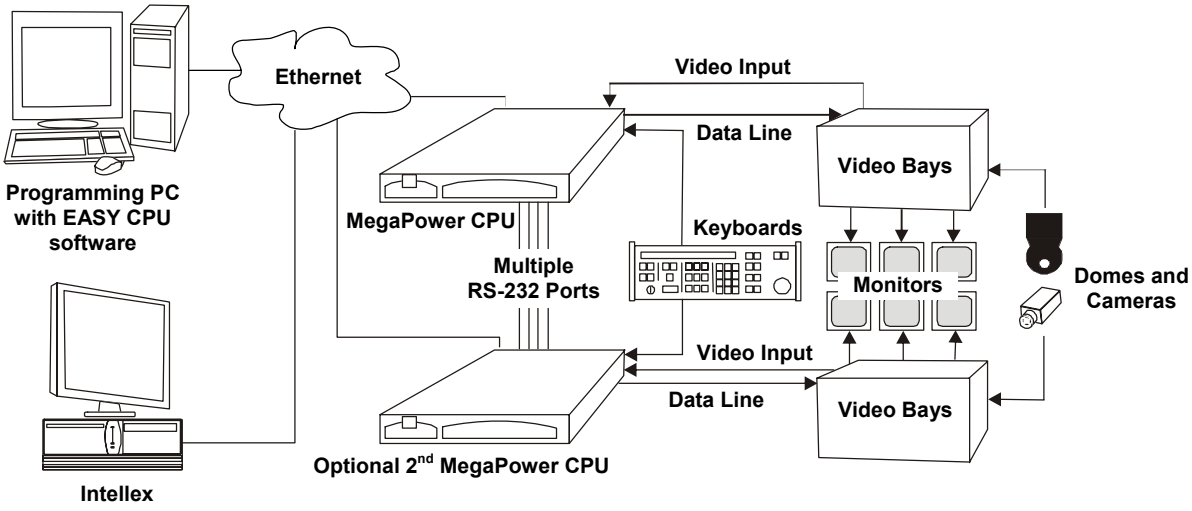
MegaPower® CPU 1
About the Product 1
About this Guide 1
MegaPower 3200 Video-Matrix CCTV System (Dual CPU) 4
MegaPower CPU Front Panel 4
CPU Rear Panel 5
MegaPower System Overview 5
System Components 5
System Capabilities 5
Compatible System Keyboards 6
System Features 6
Administrator Tasks 7
Operator Tasks 7
Initializing the System 8
Understanding the Screen Icons 8
Direct Connection 8
Ethernet Network Connection 9
Firewall Setup 12
Read Cycle 12
Write Cycle 13
Error Message Example 13
Installing EASY CPU 13
System Requirements 13
Beginning the Installation 13
Starting EASY CPU 16
Configuring Preferences 16
Viewing Configuration File Properties 17
Saving Data on the Hard Drive 17
Retrieving Configuration Data 18
Adding a User Login 21
Logging in Users for CPU Read/Write Access 22
Programming the MegaPower CPU 23
EASY CPU Main Screen Overview 23
Dropdown Menus 23
Explore Menu 24
Status Bar 24
Settings Window Display Area 24
Checking the System Status 24
Monitor Status 24
Camera Status 25
Passive Hot Switch Status 25
Error Log Status 26
Configuring the System 27
Setting System Options 27
Setting System Date and Time 28
Setting the Date and Time Using the Dialog Box 28
Setting the Date and Time Using the Keyboard 29
Setting Port Configurations 30
Configuring the Dome/PTZ Device Direct Connection 30
Configuring Switching 32
Creating Salvos 32
Deleting Salvos or Alarm Contacts 34
Creating Tours 34
Deleting Tours or Cameras 35
Event Timers 35
Event Timers – Alarm Tables 35
Event Timer – Tours 36
Configuring Alarms 37
Setting Up Alarm Monitors 37
Adding Monitor Definitions 37
Contact Arming 39
Event Timers 39
Creating Alarm Monitor/ Contact Tables 40
Alarm Messages 42
Email Messages 42
Defining System Devices 42
Defining Cameras 42
Adding Camera Definitions 43
Adding and Deleting Calling Contacts to Cameras 44
Associating Salvo Callups to Cameras 45
Defining Keyboards 46
Adding Keyboard Definitions 46
Configuring Keyboard/User Keyboards and Priorities 48
Defining the Keyboard/User Keyboards Configuration 48
Configuring the Keyboard/User Priority Settings 49
Defining Satellite Sites 50
Controlling Access with Partitions 50
Associating Cameras to Monitors 50
Adding Camera Definitions 51
Editing Camera Definitions 52
Changing Calling Contacts 52
Removing Calling Contacts 53
Associating Keyboards to Cameras 53
Adding Keyboard Definitions 54
Editing Keyboard Definitions 54
Deleting Keyboard Definitions 54
Adding Cameras to Keyboards 54

Removing Monitors or Satellite Sites Access from Keyboards 55
Associating Keyboards to Monitors 55
Adding Keyboard Definitions 55
Editing Keyboard Definitions 56
Deleting Keyboard Definitions 56
Adding Monitor Access to Keyboards 56
Adding Monitors to Keyboards 56
Removing Monitors from Keyboards 57
Associating Keyboards to Satellites 57
Adding Keyboard Definitions 57
Editing Keyboard Definitions 58
Deleting Keyboard Definitions 58
Adding Site Access to Keyboards 58
Adding Satellite Sites to Keyboards 59
Removing Satellite Sites from Keyboards 59
Associating Monitors to Cameras 59
Adding Monitor Definitions 60
Adding a Range of Cameras 61
Contact Arming 61
Event Timers 62
Performing a Ping Test 62
Declarations 63
APPENDIX A: End User License Agreement 64
APPENDIX B: MegaPower CPU System Defaults 66
APPENDIX C: MegaPower CPU Front Panel LCD Menu Structure 67
APPENDIX D: Port Number Assignments 68
APPENDIX E: Auxiliary Key Code Functions 69
F1 Special Function Keys 69
F2 Special Function Keys 69
APPENDIX F: Configuring Video Loss Detection .. 71
APPENDIX G: Alarm Programming Overview 73
Alarm Receipt 73
Alarm Arming and Response 73
Alarm Display Indicators 73
APPENDIX H: Monitor Arming Methods 74
Alarm Display Method 74
Alarm Queuing Method 74
Alarm Clearance Method 74
APPENDIX I: Monitor Arming Codes 76
Single Display, Sequence Queuing 76
Single Display, Hold Queuing 76
Block Display, Sequence Queuing 76
Block Display, Hold Queuing 77
Dual Display, Hold and Sequence Queuing 77
APPENDIX J: Alarm Arming Notes 78
Associating Alarms with Camera Salvos 78
Associating Alarms with Monitor Blocks 78
Monitor Block Queuing for Single Cameras 78
Monitor Block Queuing for Camera Salvos 78
Auxiliary and Preset Alarm Call-ups 78
Wired Alarm Contact Sets 78
APPENDIX K: Satellite Configuration Overview 79
Setting Up Satellite Sites 79
Satellite Site Connections 80
Typical Satellite System Connections – Two Sites, Unidirectional 81
Typical Satellite System Connections – Two Sites, Bidirectional 82

MegaPower 3200 Video-Matrix CCTV System (Dual CPU)

Figure 3 illustrates a MegaPower 3200 video-matrix CCTV system with an optional second MegaPower CPU installed and a computer connected for programming the system using the EASY (**E**nhanced **A**dministration **SY**stem) CPU software.

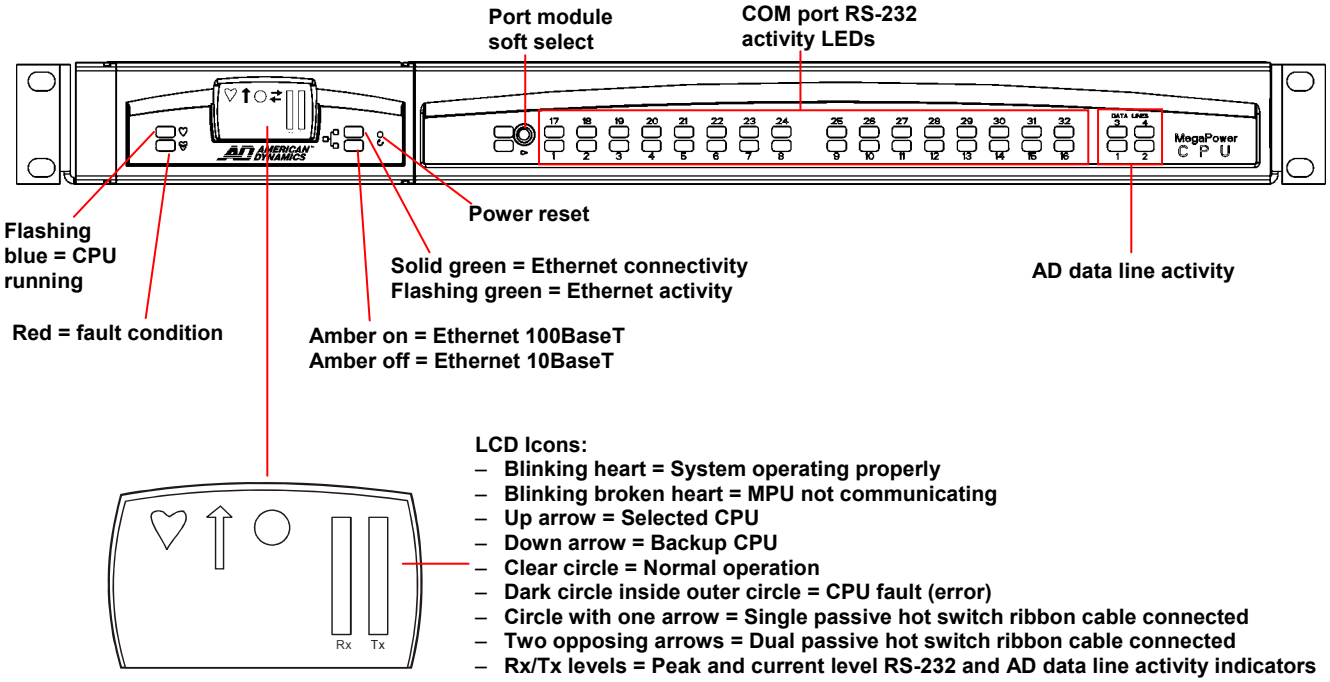
Figure 3. MegaPower 3200 Video-Matrix CCTV system (dual CPU)



MegaPower CPU Front Panel

The MegaPower CPU front panel (Figure 4) provides information about the unit's operating condition and communications.

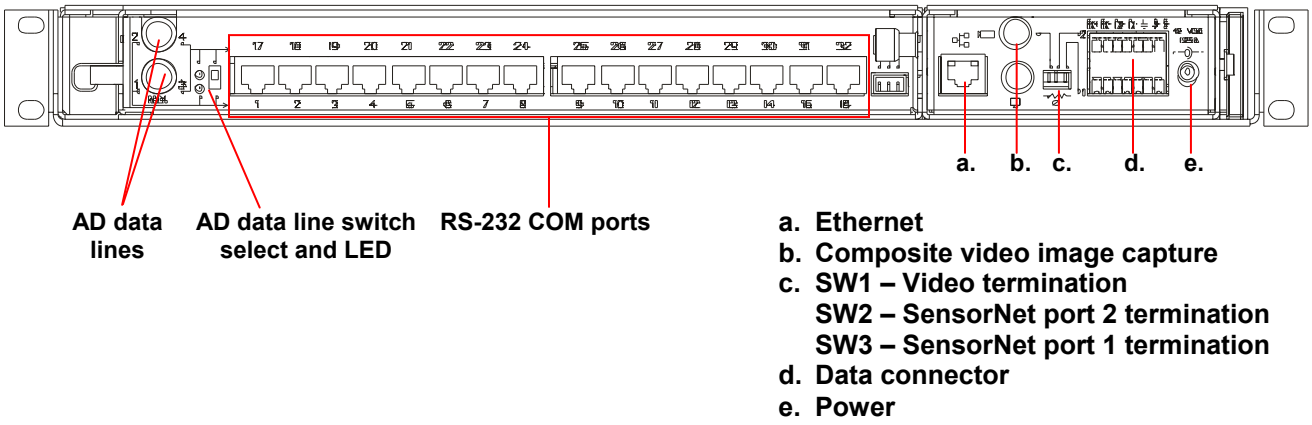
Figure 4. MegaPower CPU—front panel


Port module soft select
COM port RS-232 activity LEDs
Flashing blue = CPU running
Red = fault condition
Power reset
Solid green = Ethernet connectivity
Flashing green = Ethernet activity
Amber on = Ethernet 100BaseT
Amber off = Ethernet 10BaseT
AD data line activity
Rx
Tx
LCD Icons:
– Blinking heart = System operating properly
– Blinking broken heart = MPU not communicating
– Up arrow = Selected CPU
– Down arrow = Backup CPU
– Clear circle = Normal operation
– Dark circle inside outer circle = CPU fault (error)
– Circle with one arrow = Single passive hot switch ribbon cable connected
– Two opposing arrows = Dual passive hot switch ribbon cable connected
– Rx/Tx levels = Peak and current level RS-232 and AD data line activity indicators

CPU Rear Panel

The MegaPower CPU rear panel (Figure 5) provides data, network, and power connections.

Figure 5. MegaPower CPU—rear panel



a. Ethernet
b. Composite video image capture
c. SW1 – Video termination
SW2 – SensorNet port 2 termination
SW3 – SensorNet port 1 termination
d. Data connector
e. Power

MegaPower System Overview

The MegaPower 3200 video-matrix CCTV system is capable of managing cameras, monitors, alarm events, and video recording at both local and satellite (remote) sites. Locally, the system can control up to 3,200 video cameras displayed on up to 256 video monitors with 128 keyboards. The system can include 30 satellite sites.

The MegaPower 3200 video-matrix CCTV system can respond to 4,096 alarms by calling cameras to alarm monitors and performing auxiliary switching for the control of gates, doors, lights and other output devices. The system is compatible with a variety of operator keyboards and accessory devices.

System Components

The MegaPower CPU controls the MegaPower 3200 video-matrix CCTV system. It operates with a variety of components and communication protocols to satisfy a wide range of video surveillance needs.

System components can include:

- MegaPower CPU
- Camera/monitor switching bays
- Fixed cameras, pan/tilt/zoom cameras, and dome cameras
- Video monitors
- Operator keyboards
- Video recording devices
- Alarm interface units
- Video loss detection
- Auxiliary devices such as locks, lights, and alarms
- Programming PC (personal computer)
- Satellite site connections
- Protocol devices

System Capabilities

The MegaPower 3200 video-matrix CCTV system provides the following capabilities:

- Configurable via PC based software
- Selection, switching, and control of up to 3,200 local camera inputs
- Selection and operation of up to 256 local monitor outputs
- Single or dual CPU configuration
- Single CPU control from up to 16 RS-232 ports supporting up to 64 keyboards via AD port expander. Dual CPU control from up to 32 RS-232 ports supporting up to 128 keyboards via AD port expander.
- IP 10/100 Ethernet network connection for PC based configuration, firmware updates, activity logging, snapshot and Email text messaging
- Activity logging and reporting
- SensorNet support for up to 508 cameras

- Support for up to 30 satellite systems
- Control up to 96,000 remote cameras
- Control up to 38,528 remote cameras (full crosspoint connection) to 256 monitors
- Response to up to 4,096 alarms
- Supports up to 64 Tours
- Supports up to 64 Salvos
- Pseudo camera numbering of up to 9,999
- Support for recording devices
- Multilingual (English, French, German, Italian, Portuguese, Spanish)

Compatible System Keyboards

MegaPower CPU video switching and control capabilities are provided by American Dynamics keyboards. These capabilities are “monitor oriented” in that a keyboard controls only those functions associated with the monitor under control of that keyboard.

The MegaPower CPU is compatible with the following keyboards:

- AD2078A
- AD2079
- AD2088
- AD2089 (see note)
- ADCC0200
- ADCC0300
- ADCC1100
- ADTTE

Note: When the AD2089 keyboard is connected directly to the MegaPower CPU, the DVR (digital video recorder) functions are not supported.

For step-by-step instructions on using these keyboards with your MegaPower 3200 video-matrix CCTV system, refer to the appropriate keyboard manual.

System Features

The following are the MegaPower 3200 video-matrix CCTV system features:

- **Activity Logging** – The system can log keyboard, alarm, and system configuration activity via a connected PC running Activity Logging Client Software. The data is stored in a format compatible with popular database sorting, formatting, and reporting software. Refer to the *CPU Activity Log Client Installation and Operation Guide*, 8200-0421-09, for more information.
- **Alarm Response** – An alarm is a signal generated by an external device (such as an alarm contact or sensor) connected to a *local* MegaPower CPU. The system can respond to up to 4,096 local alarm contacts.
- **Camera Alarm Programming** – Each alarm contact can be programmed to call up a local camera, Salvo, Preset camera scene and auxiliary action.
- **External Control Inputs** – RS-232 ports allow local and remote control via keyboards, computers, or other compatible devices. You can configure each port for alarm inputs and upload/download of system setup data. You also can expand each local port via an AD port expander.
- **Input Identification** – The MegaPower CPU provides on-screen identification of all video inputs. On-screen identification of local and remote cameras includes the camera input number, programmable title, status, and the date and time.
- **Memory Retention** – All local user-programmed data is stored in flash memory. The data stored includes date/time, input identification, system Tours and Salvos, event timers, port configurations, system partitioning and alarm programming information.
- **Monitor Alarm Programming** – Each alarm contact can be programmed to display its associated camera on specific monitors. You can program separate alarm contact-to-monitor associations for call up by Event Timers.

  You can arm each monitor used for alarm displays for different display and clearance methods.
- **Monitor Tours** – A Monitor Tour is a temporary sequence of cameras programmed from a *local* keyboard for an individual monitor. A Monitor Tour can contain up to 64 *local* cameras, each with a unique dwell time.
- **Partitioning** – Programmable partitioning restricts access to specific *local* and *satellite* system resources.
- **Passcode Log On and Log Off** – Operator passcode entry allows only authorized personnel to operate the system. The passcode entry system allows a maximum of 500 users with separate passcodes.
- **PC System Setup Software** – EASY CPU is a PC-based software application package that provides programming and storage of all MegaPower CPU system setup information. The software allows you to read and write setup data to and from the MegaPower CPU.

- **Priority Access** – Priority levels assigned to keyboards and users allow higher priority users to capture and lock out cameras (pan, tilt, lens and auxiliary control) from lower priority users. The system allows up to eight priority levels.
- **Recorder control** – Operators can control recording devices (DVR, VCR or other current and future recording devices) through keyboard commands.
- **Selectable Date/Time Display** – The system's date can be programmed to display in the following formats: MM/DD/YY, DD/MM/YY or YY/MM/DD. Time is displayed in a 24-hour format.
- **System Salvos** – A System Salvo is a group of *local* cameras programmed for simultaneous call-up to a contiguous group of *local* monitors. You can program up to 64 system salvos with a maximum of sixteen cameras in each Salvo.
- **System Tours** – A System Tour is a sequence of cameras programmed from EASY CPU for an individual monitor. System Tours cannot be altered by keyboard commands and are therefore more permanent in nature than Monitor Tours. You can create up to 64 System Tours, each with up to 64 cameras. You determine the dwell time, Preset camera scene and auxiliary action for each camera.
- **Timed Events** – An Event is a user-defined time slot programmed for automatic call up of System Tours and Alarm Contact Tables. You can program up to 35 *local* Event Timers with each set for call ups at a specific time of day, on any days of the week and week after week.
- **User-Assigned Camera Numbers** – You can assign user-defined pseudo camera numbers to any camera input. Pseudo numbers identify cameras by function or location, rather than by its input number on the switcher. For example, you could assign pseudo numbers 101 through 110 for cameras on the first floor of a multi-floor building, 201 through 210 for second floor cameras, 301 through 310 for third floor cameras, and so on.
- **Video Loss Detection** – When equipped with the optional Video Loss Detector module, the system can detect the presence or loss of a video signal for each local camera. You determine the sync or video signal level at which a loss of video is detected.
- **Video Switcher Control** – The MegaPower CPU controls the video switching of all local and remote cameras to all local monitors. Switching is performed in response to operator keyboard request or by automatic action via Tours, System Salvos, Timed Events, or Alarm Response.
- **Satellite Site Support** – Up to 30 individual MegaPower 3200 video-matrix CCTV systems can be linked into a satellite network. For more detailed information on satellite systems, go to **APPENDIX K: Satellite Configuration Overview** on page 79.

Administrator Tasks

A system administrator is an individual assigned to manage the MegaPower 3200 video-matrix CCTV system. This person often participates in pre-installation planning and should be familiar with the system's capabilities, equipment, camera inputs, monitors, satellite locations, and programming.

The administrator prepares the system for operators to use. This preparation includes the following:

- Configuring the system
- Creating operator IDs, scheduling operator shifts, and determining access levels
- Creating camera names and pseudo numbers
- Creating site numbers
- Creating alarm responses
- Maintaining a list of alarms and auxiliaries
- Setting Event times
- Creating Salvos
- Creating system Tours

Operator Tasks

Operators perform the day-to-day task of video surveillance using keyboards connected to the MegaPower CPU. They select and control cameras, create and run automated camera actions, acknowledge alarm activities, adjust monitors, and take appropriate action based on what is observed. Operators can also perform limited programming functions through their keyboards.

Refer to the *MegaPower CPU Operator's Guide*, 8200-0421-02, for additional information.

Initializing the System

There are two methods for initializing the MegaPower 3200 video-matrix CCTV system:

- Direct connection of a PC to the CPU using either an RS-232 port or the Ethernet port
- Ethernet connection through an Ethernet network

Understanding the Screen Icons

The following icons can be seen on your CPU LCD screen. Some icons only appear under certain circumstances.

Icon	Description
	Indicates by constantly blinking on and off that the system is operating properly.
	Indicates the MPU is not communicating.
	Indicates the CPU that is currently active (selected).
	Indicates, in a dual CPU system, the CPU that is currently on backup (standby) status. This CPU still receives data while in this condition.
	Indicates that the system is operating properly.
	Indicates that an error (fault) has occurred. An error message is displayed with this icon.
	Indicates that a CPU is connected to itself using a single passive hot switch ribbon cable. No dual CPU installation is installed or connected.
	Indicates that both CPUs are connected together in a dual system using dual passive hot switch ribbon cables.

Direct Connection

Note: Ensure the keyboard you are using is properly configured for your installation.

RS-232 Port (S^3 Software)

Note: S^3 software should be used only to copy an existing configuration from an AD1024 CPU to a MegaPower CPU. If you are creating a completely new configuration, use the EASY CPU software.

To initialize the system, do the following:

1. Configure an AD1024 RS-232 port as follows:
   - Type = Terminal
   - Baud rate = 4800 bps
   - Parity = none
   - Data bits = 8
   - Stop bits = 1
2. Connect the PC RS-232 port to the configured AD1024 RS-232 port.
3. Open the S^3 program. When the Transfer System dialog appears, click **X** to close it.
4. In the S^3 window, click the PC Utility button at the bottom of the left column. A popup menu appears.
5. Click COMM Port Parameters in this menu, and in the PC Port dialog, set the parameters as follows:
   - Baud rate = 4800 bps
   - Parity = none
   - Data bits = 8
   - Stop bits = 1
6. Click the green check (✓) button to accept the setting, and then close the dialog.
7. Click the PC Utility button, and then click Video Matrix Switch in the popup menu.
8. Set the Video Matrix Switch Selection field to **AD1024**, and set Disk Drive field to **C:**. The Video Matrix Switch Directory opens.
9. In the Directory field, type the following file name:

   `C:\Program files\Sensormatic\S3\AD1024\MPCPU`.
10. Click inside any other field to create the file. This is the file that stores the existing AD1024 configuration.
11. Click the **X** to close the dialog, and then click the **X** to close the COM Port dialog. The Transfer System dialog opens.
12. Upload the configuration by clicking all the white check boxes in the Transfer System dialog, and then click the up arrow at the bottom of the Transfer System dialog.
13. Wait for the uploading process to complete, and then click the **X** to close the Transfer System dialog.
14. Disconnect the AD1024 CPU end of the PC RS-232 cable from the AD1024, and connect it to any port on the new MegaPower CPU.
15. Click the S^3 PC Utility in the left column of the S^3 window, and then click COM Port Parameters in the popup menu.

16. Set the PC Com port for the following:
    - Baud Rate = 1200 bps
    - Parity = none
    - Data bits = 8
    - Stop bits = 1
17. Click the green check (✓) button to accept the settings, and then click the **X** to close the dialog.

    Note: You can decrease the file transfer time by changing both the PC and the MegaPower CPU COM ports to 4800bps.
18. Power up the MegaPower CPU. The LCD screen displays the AD Welcome Screen, followed by the CPU Status screen.

Figure 6. AD welcome screen

Figure 7. CPU status screen

19. Click the S^3 PC Utility in the left column of the S^3 window, and then click Transfer System in the popup menu.
20. Click all the white check boxes in the Transfer System dialog, and then click the down arrow at the bottom of the dialog.
21. Wait for the download to complete, and then click the **X** to close the Transfer System dialog.

    Note: The LCD screen does not display a confirmation that the configuration is complete.

Ethernet Port (EASY CPU Software)

When configuring the MegaPower CPU with EASY CPU software, use an Ethernet cross cable to connect the PC via its Ethernet port to the CPU. The CPU also can be connected to a LAN and accessed by any PC running EASY CPU on the LAN.

The default IP address on a new MegaPower CPU from the factory is 192.168.0.1. The IP address can only be changed with a keyboard connected to an RS-232 port on the CPU.

To initialize the system with a CPU connected directly to a PC via the Ethernet port, do the following:

1. Connect the CPU directly to the PC via an Ethernet cable.
2. Switch on the PC, and ensure EASY CPU is installed and operational on the PC. Refer to the sections starting on page 13 for installing, starting, and programming instructions.
3. Switch on the CPU. The LCD screen displays the AD Welcome Screen, followed by the CPU Status screen.

Figure 8. AD welcome screen

Figure 9. CPU status screen

4. If the PC is connected directly to the MegaPower CPU, and the PC and MegaPower CPU are not connected to a network, the default IP address, 192.168.0.1, can remain at the IP address. Before attempting a configuration download, ensure that the IP address is configured in the following folder:

   `EZ CPU\MPCPU\System\Options\CPU Addresses\CPU # 1.`

Ethernet Network Connection

Note: Depending on your installation, you can use either an IP address assigned by the network DHCP server or a static IP address.

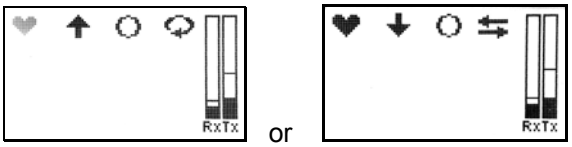
To initialize the system that is installed using the Ethernet protocol, do the following:

1. Connect the CPU to the Ethernet network via an Ethernet cable.
2. Connect the PC to the Ethernet network via an Ethernet cable.
3. Switch on the PC, and ensure EASY CPU is installed and operational on the PC. Refer to the sections starting on page 13 for installing, starting, and programming instructions.

4. Switch on the CPU. The LCD screen displays the AD Welcome Screen (Figure 10), followed by the CPU Status screen, two examples of which are shown in Figure 11.

Figure 10. AD welcome screen

Figure 11. CPU status screen



Using an IP Address Assigned by the Network DHCP Server

To set up the MegaPower CPU to obtain an IP address from a DHCP server, do the following:

1. Connect a keyboard to an RS-232 port on the MegaPower CPU. Ensure the baud rates match for the keyboard and CPU port in use.
2. Use the following instructions to provide the key sequences for each supported keyboard:

   AD2088:

   a. Place the keyboard in Menu Mode by turning the keyswitch to **MENU.** The Camera field LED on the keyboard should display **P6**.

   b. Enter one of the following number sequences for your MegaPower CPU installation:

   - **Standalone MPCPU**: Enter **100**.
   - **Dual MPCPU:** Enter **100** for the selected MegaPower CPU, or enter **101** for the Standby MP CPU.

   c. Press the **ENTER** key, which is located above the joystick. “ENTER” is stenciled on the front face of the key; the top of the key may be labeled either PRESET or SHOT.

   The Camera field LED on the keyboard will only display **7P** if the selected CPU is accessed.

   ADCC1100:

   a. Place the keyboard in Program Mode by clicking the tab in the middle of the lower part of the screen).

   Note: To display and enter Program Mode, you must insert a Smartcard that has administrator privileges.

   b. Press the **Matrix Menus** softkey.

   c. Enter one of the following number sequences for your MegaPower CPU installation:

   - **Standalone MPCPU**: Enter **100**.
   - **Dual MPCPU:** Enter **100** for the selected MegaPower CPU, or enter **101** for the Standby MP CPU.

   d. Press the **Enter** softkey.

   ADCC0200/0300:

   Notes: In RS–232 mode, the ADCC0200 keyboard does not have matrix menu access capabilities as indicated by the **Access Denied** message if the following procedure is attempted.

   a. Press and hold the **Shift** ( ) button and then press the **Menu** ( ) button.

   b. Enter one of the following number sequences for your MegaPower CPU installation:

   - **Standalone MPCPU**: Enter **100**.
   - **Dual MPCPU:** Enter **100** for the selected MegaPower CPU, or enter **101** for the Standby MP CPU.

   c. Press **Enter** ( ).

   Note: Whenever scrolling to a different line item on the LCD screen, you must press twice to select the new item.

   Note: To exit Program Mode, press and hold the **Shift** ( ) button, and then press the **Clear** ( ) button.

   ADTTE:

   a. Place the keyboard in Program Mode (indicated by **–P** being displayed at the far right of the LCD).

   b. Press the **Menu** key. The LCD screen displays **P6 - M**.

   c. Enter one of the following number sequences for your MegaPower CPU installation:

   - **Standalone MPCPU**: Enter **100**

- **Dual MPCPU:** Enter **100** for the selected MegaPower CPU, or enter **101** for the Standby MP CPU.

d. Press the **Ack** key located in the lower right corner.

The System Menu appears on the LCD screen (Figure 12).

Note: To exit the LCD Menu Mode, press the **Menu** key.

Figure 12. System Menu screen

3. Press **Enter** to choose Addressing. The Address Menu screen appears.

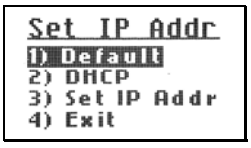
Figure 13. Address Menu screen

4. Press **Enter** to choose IP Address. The IP Address screen appears.

Figure 14. IP Address screen

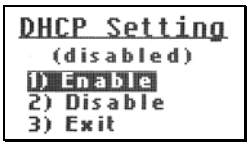
5. Scroll down to Set IP Addr and press **Enter**. The Set IP Address screen appears.

Figure 15. Set IP Address screen



6. Scroll down to DHCP and press **Enter**. The DHCP Setting screen appears.

Figure 16. DHCP Setting screen



7. Press **Enter** to choose Enable.
8. Exit from the MegaPower CPU menu system.

Using a Static IP Address

To set up the MegaPower CPU for a static IP address:

1. Connect a keyboard to an RS-232 port on the MegaPower CPU. Ensure the baud rates match for the keyboard and CPU port in use.
2. Use the following instructions to provide the key sequences for each supported keyboard:

AD2088:

a. Place the keyboard in Menu Mode by turning the keyswitch to **MENU.** The CAMERA LEDs on the keyboard display **P6**.

b. Enter one of the following number sequences for your MegaPower CPU installation:

- **Standalone MPCPU**: Enter **100**.
- **Dual MPCPU:** Enter **100** for the selected MegaPower CPU, or enter **101** for the Standby MP CPU.

c. Press the **ENTER** key, which is located above the joystick. “ENTER” is stenciled on the front face of the key; the top of the key may be labeled either PRESET or SHOT.

The CAMERA LEDs on the keyboard will only display **7P** if the selected CPU is accessed.

ADCC1100:

a. Place the keyboard in Program Mode by pressing its softkey.

Note: To display and enter Program Mode, you must insert a Smartcard that has administrator privileges.

b. Press the **Matrix Menus** softkey.

c. Enter one of the following number sequences for your MegaPower CPU installation:

- **Standalone MPCPU**: Enter **100**.
- **Dual MPCPU:** Enter **100** for the selected MegaPower CPU, or enter **101** for the Standby MP CPU.

d. Press the **Enter** softkey.

ADCC0200/0300:

Notes: In RS–232 mode, the ADCC0200 keyboard does not have matrix menu access

capabilities as indicated by the **Access Denied** message if the following procedure is attempted.

a. Press and hold the **Shift** ( ) button and then press the **Menu** ( ) button.

b. Enter one of the following number sequences for your MegaPower CPU installation:

   - **Standalone MPCPU**: Enter **100**.
   - **Dual MPCPU:** Enter **100** for the selected MegaPower CPU, or enter **101** for the Standby MP CPU.

c. Press **Enter** ( ).

   Note: Whenever scrolling to a different line item on the LCD screen, you must press twice to select the new item.

Note: To exit Program Mode, press and hold the **Shift** ( ) button, and then press the **Clear** ( ) button.

ADTTE:

a. Place the keyboard in Program Mode (indicated by **–P** being displayed at the far right of the LCD).

b. Press **Menu**. The LCD screen displays **P6 - M**.

c. Enter one of the following number sequences for your MegaPower CPU installation:

   - **Standalone MPCPU**: Enter **100**
   - **Dual MPCPU:** Enter **100** for the selected MegaPower CPU, or enter **101** for the Standby MP CPU.

d. Press the **Ack** key located in the lower right corner.

The System Menu screen (Figure 17) appears on the LCD screen.

Note: To exit the LCD Menu Mode, press **Menu**.

Figure 17. System Menu screen

3. Press **Enter** to choose Addressing. The Address Menu screen appears.

Figure 18. Address Menu screen

4. Press **Enter** to choose the IP Address. The IP Address screen appears.

Figure 19. IP Address screen

5. Scroll down to Set IP Addr and press **Enter**. The Set IP Address screen appears.

Figure 20. Set IP Address screen

6. Scroll down to Set IP Addr and press **Enter**. The Enter IP Address screen appears.

Figure 21. Enter IP Address screen

7. Press **Enter**, and then type the IP address pressing **Enter** twice after typing each segment of the IP address.
8. Scroll down to Accept and press **Enter**.
9. Exit from the MegaPower CPU menu system.

Firewall Setup

To set up the firewall, refer to **APPENDIX D: Port Number Assignments** on page 68 for the appropriate MPCPU IP port source and destination port numbers. Assigning these port numbers allows communication with external devices.

Read Cycle

During a Read cycle, data is transferred from the CPU to a PC running EASY CPU. The following

screens show the sequence of operations that take place during a Read cycle.

Figure 22. File transfer in progress screen

Figure 23. File transfer completed screen

Write Cycle

During a Write cycle, data is transferred to the CPU from a PC running EASY CPU. The following screens show the sequence of operations that take place during a Write cycle.

Figure 24. File transfer in progress screen

Figure 25. Receiving file saving screen

Figure 26. Received file saved screen

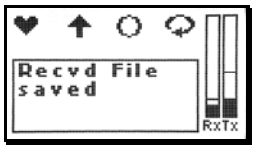
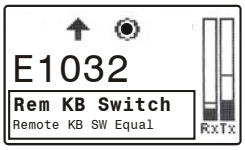


Figure 27. File transfer completed screen

Error Message Example

The following screen shows an example of an error message that can appear when an abnormal condition occurs.

Figure 28. Error message screen example



Installing EASY CPU

System Requirements

The following are the minimum system requirements for installing and operating the EASY CPU software application:

- **Computer**: PC-compatible computer with 600 MHz Intel® Pentium® III microprocessor or greater
- **Hard Drive Space**: 300MB (100MB if .NET 1.1 is already installed)
- **Memory**: 128MB
- **Network Card**: 10BaseT or 100BaseT
- **Video**: SVGA with 16MB video RAM
- **Monitor**: 800 x 600 pixel resolution, 16-bit color
- **Operating System**: Microsoft® Windows® XP, Microsoft Windows Vista

Beginning the Installation

Note: The following procedure explains the steps for a first-time installation. If EASY CPU is resident on your computer, installing subsequent versions will cause a different sequence of installation screens to appear.

To begin installing EASY CPU:

1. Do one of the following:
   - If you have the EASY CPU CD, insert it into the computer. It should automatically load the install program.

     Note: If the installation program does not load automatically, manually start it by navigating to My Computer, and then double-click on the CD drive unit to start autorun.

- If you are downloading EASY CPU from a web site or server to the computer, save the zip file to a folder you have chosen, and then unzip the file in that folder. Next, double-click on the file, Setup.exe, to begin installation.

The Choose Setup Language dialog box appears (Figure 29).

Figure 29. Choose Setup Language dialog

2. Select the desired language from the dropdown menu, and click **OK**.

   The InstallShield Wizard operating system version checking screen appears (Figure 30).

Figure 30. Operating System Version Check screen

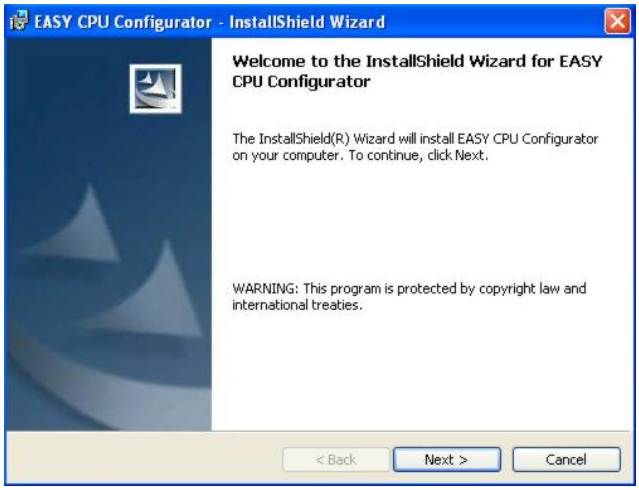
InstallShield Wizard
EASY CPU Configurator Setup is preparing the InstallShield Wizard, which will guide you through the program setup process. Please wait.
Checking Operating System Version
Cancel

3. A series of screens appear during the installation progress. Respond to the prompts as the installation progresses. When the prompt, **OK**, appears during installation, click on it.

   Note: If you want to end the installation at any point before the installation has completed, click **Cancel** in a screen where this choice is not grayed out. You will be prompted to confirm that you want to end the installation. Click **Yes** to end the installation, or click **No** to continue the installation.

4. When the following screen (Figure 31) appears, click **Next** to continue the installation.

Figure 31. Wizard Welcome screen


EASY CPU Configurator - InstallShield Wizard
Welcome to the InstallShield Wizard for EASY CPU Configurator
The InstallShield(R) Wizard will install EASY CPU Configurator on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

5. When the License Agreement screen (Figure 32 on page 15) appears, do one of the following:

   Note: To view the License Agreement in your language, go to **APPENDIX A: End User License Agreement** on page 64.

   - After reading the license agreement, if you accept the license agreement terms, click the **I accept the terms in the license agreement** radio button, and then click **Next**.
   - If you *do not* want to accept the license agreement terms, click the **I do not accept the terms in the license agreement** radio button, and then click **Cancel**. The installation will terminate.

     If you want to go back a step in the installation, click **< Back** whenever it is appears.

     Note: You can print a copy of the License Agreement by clicking **Print** in this screen; however, you must have a printer connected to your system to do this.

Figure 32. License Agreement screen

EASY CPU Configurator - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
END USER LICENSE AGREEMENT
IMPORTANT - READ CAREFULLY: THIS END-USER LICENSE AGREEMENT ("EULA") IS A LEGAL AGREEMENT BETWEEN YOU ("LICENSEE"), AND SENSORMATIC ELECTRONICS CORPORATION ("TYCO") FOR THE TYCO SOFTWARE ACCOMPANYING THIS EULA, WHICH INCLUDES COMPUTER SOFTWARE AND MAY INCLUDE MEDIA, PRINTED MATERIALS, AND "ON-LINE" OR ELECTRONIC
I accept the terms in the license agreement
I do not accept the terms in the license agreement
Print
InstallShield
< Back
Next >
Cancel

6. In the Customer Information screen (Figure 33), type your user name in the **User Name** field, and then type your organization name in the **Organization** field.

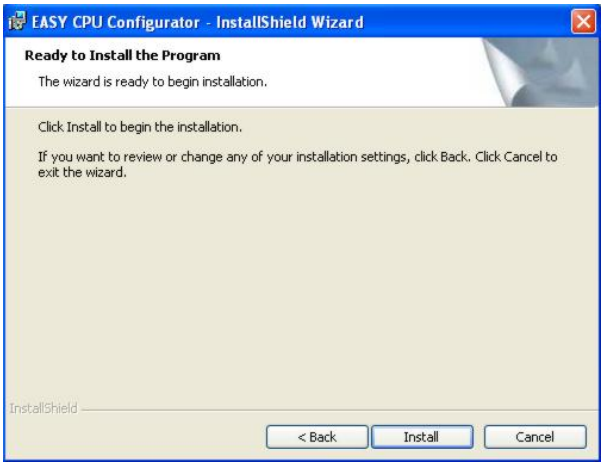
   If you want to install EASY CPU so that anyone can access the application, click the **Anyone who uses this computer (all users)** radio button, and then click **Next**.

   If you want to limit access to the application to just yourself, click on the **Only for me (*organization name*)** radio button, and then click **Next**.

Figure 33. Customer Information screen

7. When the **Ready to Install screen** (Figure 34) appears, click **Install** to begin the EASY CPU installation, or click **Cancel** to end the installation.

Figure 34. Ready to Install screen


EASY CPU Configurator - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

The following screens (Figure 35 and Figure 36) appear.

Figure 35. Installing EASY CPU Configurator screen

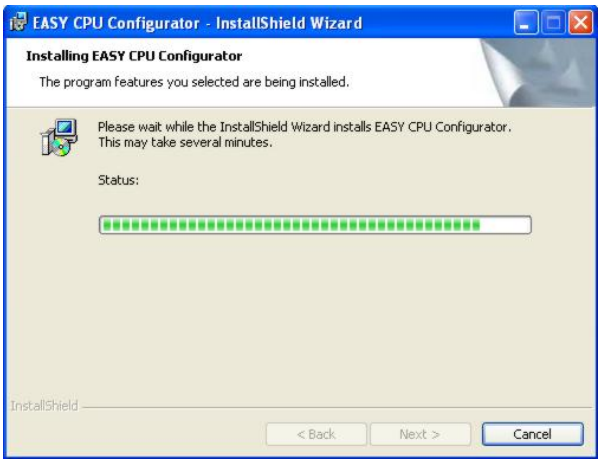
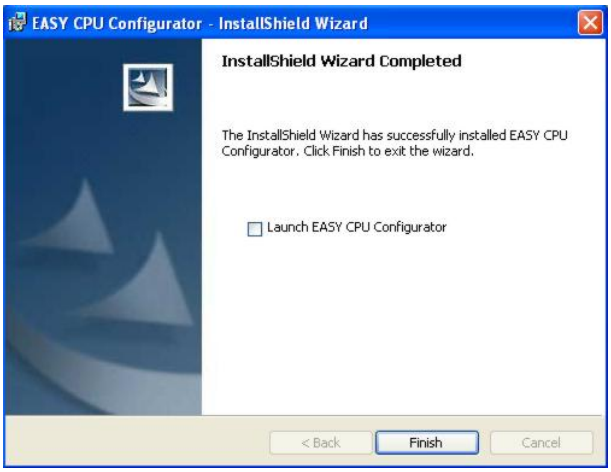

EASY CPU Configurator - InstallShield Wizard
Installing EASY CPU Configurator
The program features you selected are being installed.
Please wait while the InstallShield Wizard installs EASY CPU Configurator. This may take several minutes.
Status:
InstallShield
< Back
Next >
Cancel

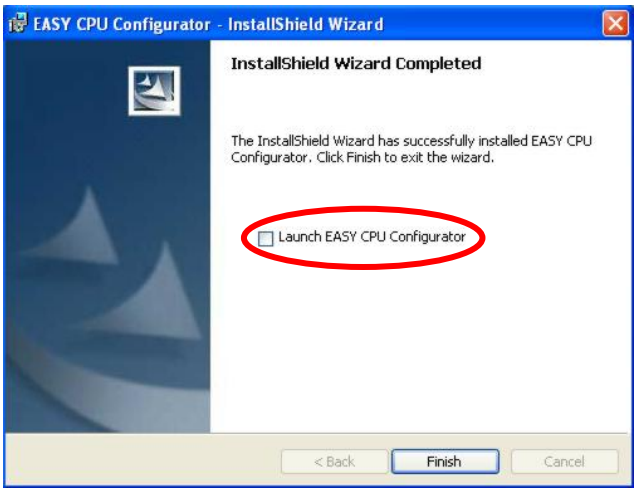
Figure 36. Installation Complete screen


EASY CPU Configurator - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed EASY CPU Configurator. Click Finish to exit the wizard.
Launch EASY CPU Configurator
< Back
Finish
Cancel

8. Continue to the next section, **Starting EASY CPU**.

Starting EASY CPU

Figure 37. Installation Complete screen


EASY CPU Configurator - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed EASY CPU Configurator. Click Finish to exit the wizard.
Launch EASY CPU Configurator
< Back
Finish
Cancel

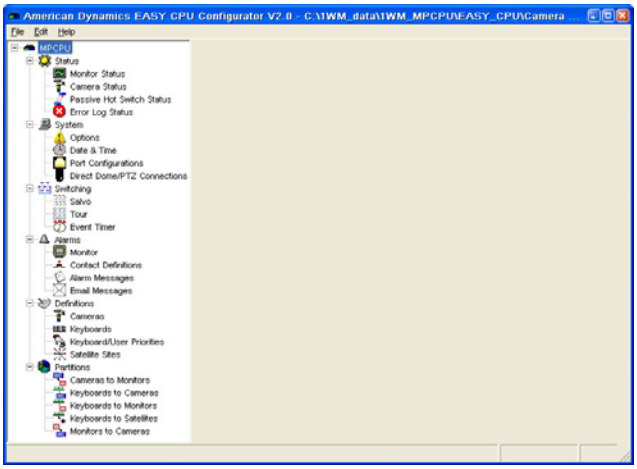
To start EASY CPU, do one of the following:

- If you want to start EASY CPU immediately following completion of the installation, click the **Launch EASY CPU Configurator** checkbox in the preceding screen (Figure 37), and then click **Finish**.
- If you do not want to start EASY CPU immediately following completion of the installation, leave the **Launch EASY CPU Configurator** checkbox blank, and click **Finish**.

  If you choose to wait to start EASY CPU, then locate the MegaPower 3200 file > EASY CPU Configurator file > Configurator.exe, and then either double-click the file name to start the application, or use the Start Menu.

  In either case, EASY CPU starts and the Main Screen appears (Figure 38). Easy CPU will start in the language selected during installation.

Figure 38. EASY CPU Main screen

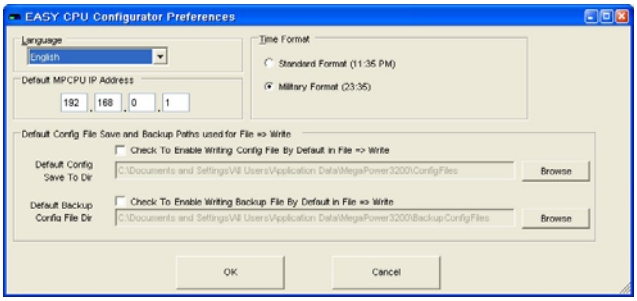


Configuring Preferences

Once EASY CPU is started, do the following:

1. Click **Edit**, and then click **Preferences** in the dropdown menu bar. The Preferences dialog box appears (Figure 39).

Figure 39. Configurator Preferences dialog


EASY CPU Configurator Preferences
Language
English
Time Format
Standard Format (11:35 PM)
Military Format (23:35)
Default MPCPU IP Address
192 . 168 . 0 . 1
Default Config File Save and Backup Paths used for File => Write
Check To Enable Writing Config File By Default in File => Write
Default Config Save To Dir
Browse
Check To Enable Writing Backup File By Default in File => Write
Default Backup Config File Dir
Browse
OK
Cancel

2. To complete the configuration preferences, enter the following information:
   - **Language –** From the Language dropdown, select the appropriate language. EASY CPU supports the following languages:
     - English
     - French
     - German
     - Italian
     - Portuguese
     - Spanish
     - Korean
     - Chinese

- **Time Format –** Select a Time Format by clicking either Standard Format (12-hr., a.m. and p.m. display) or Military Format (24-hr. display).
- **Default MPCPU IP Address –**Set the default IP address used for write/read operations if no IP address is specified as CPU A and CPU B in the System – Options screen.
- **Default Config File Save and Backup Paths used for File => Write**
  - **Check To Enable Writing Config File By Default in File => Write –** When this checkbox is checked, the File => Write dialog **Save To File** checkbox also will be checked when a Write operation is invoked.
  - **Default Config Save To Dir –** Specify a path to the default directory to which configuration files will be saved when invoking File => Write with a new MPCPU configuration. Use the **Browse** button on the right side of the path field to help define the path.
  - **Check To Enable Writing Backup File By Default in File => Write –** When this checkbox is checked, the File => Write dialog **Backup File** checkbox also will be checked when a Write operation is invoked.
  - **Default Backup Config File Dir –** Specify a path to the default directory to which backup files will be archived when invoking File => Write. Use the **Browse** button on the right side of the path field to help define the path.

3. Click **OK** to save your preferences or **Cancel** to close the dialog box without saving your preferences.
4. Close and restart EASY CPU for your change to take effect. The Main Screen (Figure 52 on page 23) appears in the selected language.

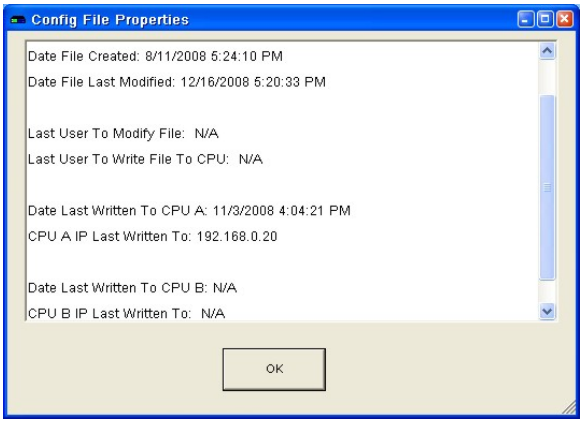
Viewing Configuration File Properties

To view the configuration file properties, do the following:

1. Click **File** on the main screen.
2. Click **Properties…** in the dropdown menu bar. The Config File Properties screen (Figure 40) displays information about the currently open configuration file.

   Note: If your configuration file was created prior to EASY CPU Version 2.00, it is designated as a Version 1.00 file and the Properties screen does not contain any information other than the version number and a note on how to convert a Version 1.00 file to a Version 2.00 file.

Figure 40. Configuration File Properties


Config File Properties
Date File Created: 8/11/2008 5:24:10 PM
Date File Last Modified: 12/16/2008 5:20:33 PM
Last User To Modify File: N/A
Last User To Write File To CPU: N/A
Date Last Written To CPU A: 11/3/2008 4:04:21 PM
CPU A IP Last Written To: 192.168.0.20
Date Last Written To CPU B: N/A
CPU B IP Last Written To: N/A
OK

3. Click **OK** to exit this screen.

Saving Data on the Hard Drive

EASY CPU allows you to save system configurations on your hard drive. You can do this either before or after transferring new configurations to the MegaPower CPU. However, any configuration you save to your hard drive must be transferred (written) from the hard drive to the CPU before it will take effect in the system.

To save configuration data on your hard drive:

1. Click **File** on the main screen.
2. Click **Save** in the dropdown menu bar if you are planning to overwrite the existing file or **Save As** if you are planning to create a new file.
3. If **Save As**, navigate through the **Save As** dialog to a desired folder and enter a file name.
4. Click **Save** to save and close the file.

Retrieving Configuration Data

Do one of the following:

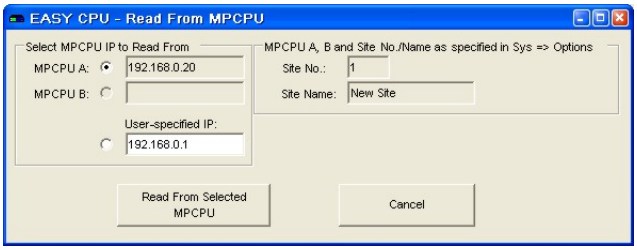
- For a new installation where no configuration data file has been previously created, you should initialize your system by retrieving (reading) into EASY CPU the factory-default configuration data residing in the CPU firmware. To do this, go to the section, **Factory-Default or Existing Configuration Data in CPU**, below.
- If you want to use an existing configuration file that already has been written to the CPU, go to the section, **Factory-Default or Existing Configuration Data in CPU**, below.
- If you want to use an existing configuration file that has not yet been written to the CPU, go to the section, **Configuration Data File Only in PC**.
- If you want to create a new configuration file and then write it to the CPU, go to the section, **New Configuration File**, on page 20.

Factory-Default or Existing Configuration Data in CPU

Retrieve the factory-default or existing configuration data from the CPU into EASY CPU by doing the following:

1. Click **File** on the main screen.
2. Click **Read** in the dropdown menu bar. The Read from MPCPU dialog box appears.

Figure 41. Read from MPCPU dialog



3. In the Select MPCPU IP to Read From section of the dialog box, select one of the following radio buttons:

   Note: Only one MPCPU radio button at a time can be selected for reading.

   - **MPCPU A:** Read from the MPCPU A IP address as defined in the System – Options dialog box. This IP address is read-only in Figure 41. The default for this field is defined in the Edit => Preferences menu option.
   - **MPCPU B:** Read from the MPCPU B IP address as defined in the System – Options dialog box. This IP address is read-only in Figure 41.
   - **User-specified IP:** Enter an appropriate IP address of your choosing. The default for this field is defined in the Edit => Preferences menu option.

4. In the MPCPU A, B, and Site No./Name as specified in Sys => Options section, the **Site No.** and **Site Name** fields only appear when either the MPCPU A or MPCPU B radio buttons are selected. They are for reference only and cannot be changed in this dialog box. They are defined in the System – Options dialog box.
5. Click the **Read From Selected MPCPU** button to read the configuration from the selected MPCPU IP address, or click **Cancel** to close the dialog box without reading the configuration data.
6. Choose one of the following:
   - If you want to enable user logins, go to the section, **Adding a User Login**, on page 21.
   - If you do not want to enable user logins, your system is ready to use.

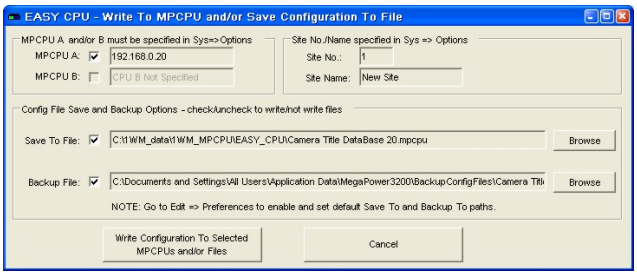
Configuration Data File Only in PC

After creating and saving a configuration data file in EASY CPU, you must write (or transfer) the new configuration settings to the CPU.

To write an existing configuration data file located in your PC to the CPU, do the following:

1. Click **File** on the main screen.
2. Click **Open…** in the dropdown menu bar.
3. Locate and highlight the desired file in the **Open** dialog box.
4. Click **Open**. The file is loaded into EASY CPU.
5. Click **File** on the main screen.
6. Click **Write** in the dropdown menu bar. The Write to MPCPU and/or Save Configuration To File dialog box appears (Figure 42).

Figure 42. Write to MPCPU and/or Save Configuration To File dialog

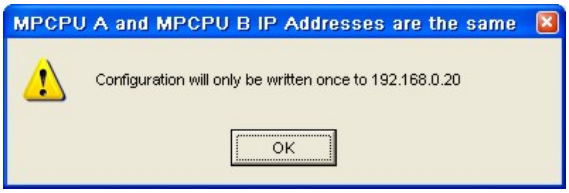

EASY CPU - Write To MPCPU and/or Save Configuration To File
MPCPU A and/or B must be specified in Sys=>Options
MPCPU A:
192.168.0.20
MPCPU B:
CPU B Not Specified
Site No./Name specified in Sys => Options
Site No.:
1
Site Name:
New Site
Config File Save and Backup Options - check/uncheck to write/not write files
Save To File:
C:\1\WM_data\1\WM_MPCPU\EASY_CPU\Camera Title DataBase 20.mpcpu
Browse
Backup File:
C:\Documents and Settings\All Users\Application Data\MegaPower3200\BackupConfigFiles\Camera Titl
Browse
NOTE: Go to Edit => Preferences to enable and set default Save To and Backup To paths.
Write Configuration To Selected MPCPUs and/or Files
Cancel

7. In the section labeled MPCPU A and/or B must be specified in Sys => Options, choose one or both of the following checkboxes depending on whether you have a single MPCPU configuration or both MPCPUs in a dual hotswitch configuration:

   - **MPCPU A:** When checked, the configuration is written to the indicated IP address, which is defined in the System – Options dialog box. This IP address is read-only in Figure 42. When unchecked, the configuration is not written to the indicated IP address.
   - **MPCPU B:** When checked, the configuration is written to the indicated IP address, which is defined in the System – Options dialog box. This IP address is read-only in Figure 42. When unchecked, the configuration is not written to the indicated IP address.

   Note: If both MPCPU IP addresses are the same, a message box will appear stating that the configuration will only be written once to the IP address.

Figure 43. MPCPU Addresses are the same message box



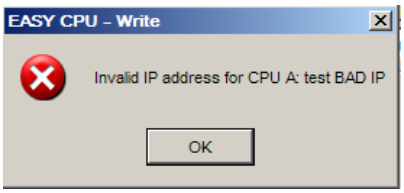
8. In the Site No./Name specified in Sys => Options section, the **Site No.** and **Site Name** fields are for reference only and cannot be changed in this dialog box. They are defined in the System – Options dialog box.
9. In the section labeled Config File Save and Backup Options, choose one or both of the following checkboxes:

   - **Save To File:** When checked, the configuration is saved to the path and filename shown in the associated field. You can change the path/filename by clicking the **Browse** button on the right and navigating to the path/filename of your choice in the dropdown list. When unchecked, the configuration is not saved.
   - **Backup File:** When checked, the configuration is backed up to the path and filename shown in the associated field. You can change the path/filename by clicking the **Browse** button on the right and navigating to the path/filename of your choice in the dropdown list. When unchecked, the configuration is not saved to the backup file.

10. Click the **Write Configuration To Selected MPCPUs and/or Files** button to begin writing the configuration data into the CPU, or **Cancel** to close the dialog box without writing the configuration data.

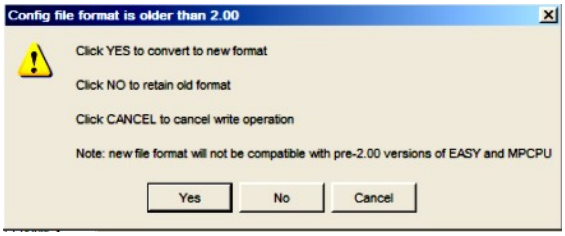
    When you click the **Write Configuration To Selected MPCPUs and/or Files** button, each IP address is checked to ensure it has a properly formatted IP address. If either IP address has an invalid IP address format, you will receive a warning message. You will need to correct the invalid format before continuing.

Figure 44. Invalid IP Address message box



Note: If the configuration being written is a version V1.00 configuration file, upon clicking **Write Configuration To Selected MPCPUs and/or Files**, you will be prompted whether or not to convert the configuration to the V2.00 format prior to writing to the MPCPUs.

Figure 45. Configuration File Conversion dialog


Config file format is older than 2.00
Click YES to convert to new format
Click NO to retain old format
Click CANCEL to cancel write operation
Note: new file format will not be compatible with pre-2.00 versions of EASY and MPCPU
Yes
No
Cancel

11. Choose one of the following:
    - If you want to enable user logins, go to the section, **Adding a User Login**, on page 21.
    - If you do not want to enable user logins, your system is ready to use.

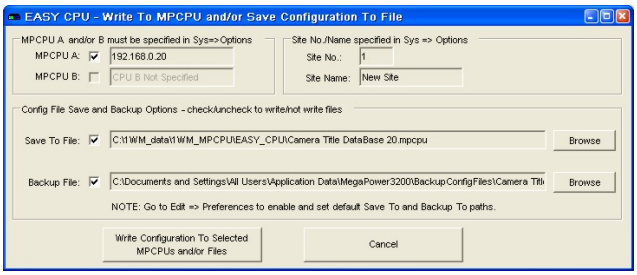
New Configuration File

Note: You must save a new configuration file to your PC before EASY CPU allows you to write to the MegaPower CPU.

To create a new configuration file, do the following:

1. Click **File** on the main screen.
2. Click **New** in the dropdown menu bar.
3. Using the configuring information throughout this guide, set up your system configuration.
4. When you have completed your configuration, click **File** on the main screen.
5. Click **Save** or **Save As…** in the dropdown menu bar.
6. Navigate through the **Save** or **Save As…** dialog box to a desired folder, and enter an appropriate file name for your configuration.
7. Click **Save** to save the file. The file is saved to your PC.
8. Click **File** on the main screen.
9. Click **Write** in the dropdown menu bar. The Write to MPCPU and/or Save Configuration To File dialog box appears (Figure 46).

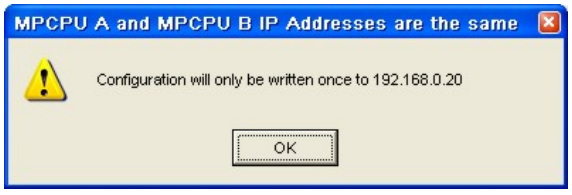
Figure 46. Write to MPCPU and/or Save Configuration To File dialog


EASY CPU - Write To MPCPU and/or Save Configuration To File
MPCPU A and/or B must be specified in Sys=>Options
MPCPU A:
192.168.0.20
MPCPU B:
CPU B Not Specified
Site No./Name specified in Sys => Options
Site No.:
1
Site Name:
New Site
Config File Save and Backup Options - check/uncheck to write/not write files
Save To File:
C:\1\WM_data\1\WM_MPCPU\EASY_CPU\Camera Title DataBase 20.mpcpu
Browse
Backup File:
C:\Documents and Settings\All Users\Application Data\MegaPower3200\BackupConfigFiles\Camera Titl
Browse
NOTE: Go to Edit => Preferences to enable and set default Save To and Backup To paths.
Write Configuration To Selected MPCPUs and/or Files
Cancel

10. In the section labeled MPCPU A and/or B must be specified in Sys => Options, choose one or both of the following checkboxes depending on whether you have a single MPCPU configuration or both MPCPUs in a dual hotswitch configuration:
    - **MPCPU A:** When checked, the configuration is written to the indicated IP address, which is defined in the System – Options dialog box. This IP address is read-only in Figure 46. When unchecked, the configuration is not written to the indicated IP address.
    - **MPCPU B:** When checked, the configuration is written to the indicated IP address, which is defined in the System – Options dialog box. This IP address is read-only in Figure 46. When unchecked, the configuration is not written to the indicated IP address.

    Note: If both MPCPU IP addresses are the same, a message box will appear stating that the configuration will only be written once to the IP address.

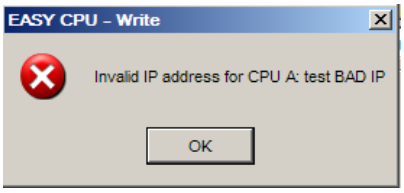
Figure 47. MPCPU Addresses are the same message box



11. In the Site No./Name specified in Sys => Options section, the **Site No.** and **Site Name** fields are for reference only and cannot be changed in this dialog box. They are defined in the System – Options dialog box.
12. In the section labeled Config File Save and Backup Options, choose one or both of the following checkboxes:
    - **Save To File:** When checked, the configuration is saved to the path and filename shown in the associated field. You can change the path/filename by clicking the **Browse** button on the right and navigating to the path/filename of your choice in the dropdown list. When unchecked, the configuration is not saved.
    - **Backup File:** When checked, the configuration is backed up to the path and filename shown in the associated field. You can change the path/filename by clicking the **Browse** button on the right and navigating to the path/filename of your choice in the dropdown list. When unchecked, the configuration is not saved to the backup file.
13. Click the **Write Configuration To Selected MPCPUs and/or Files** button to begin writing the configuration data into the CPU, or **Cancel** to close the dialog box without writing the configuration data.

Note: When you click the **Write Configuration To Selected MPCPUs and/or Files** button, each IP address is checked to ensure it has a properly formatted IP address. If either IP address has an invalid IP address format, you will receive a warning message. You will need to correct the invalid format before continuing.

Figure 48. Invalid IP Address message box



14. Choose one of the following:
    - If you want to enable user logins, go section **Adding a User Login** below.
    - If you do not want to enable user logins, your system is ready to use.

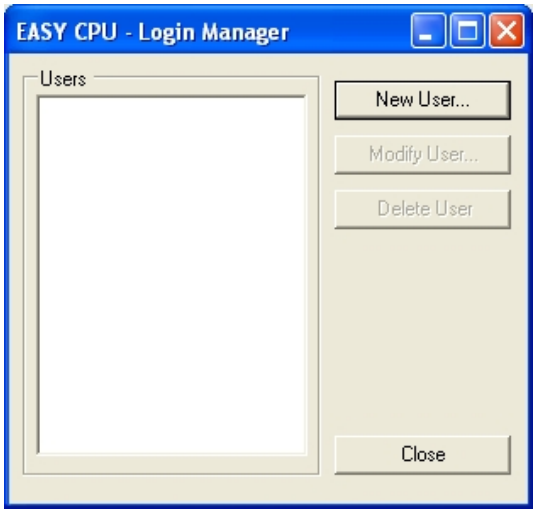
Adding a User Login

When you create a user login, the CPU login request function is enabled. Users must log in to be able to read and write configuration data.

To create a user login:

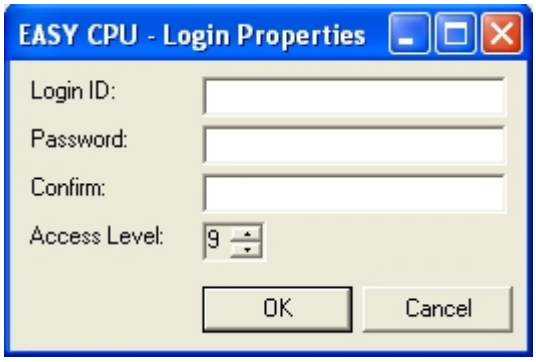
1. With EASY CPU started and a configuration file open, click **Edit** in the dropdown menu bar.
2. Click **User Logins…**. The EASY CPU – Login Manager dialog box appears.

Figure 49. Login Manager dialog



3. Click **New User…**. The Login Properties dialog box appears (Figure 50).

Figure 50. Login Properties dialog



4. Complete the Login ID, Password, and Confirm fields in the Login Properties dialog box for the new user.
5. In the Access Level field, click on the scroll buttons to choose the appropriate access level for the new user (1 being the lowest level, 9 being the highest level).

   Note: The Access Level field is grayed out for the first user so that user will have all administrator privileges. This field is available to set access levels for subsequent users.

   CAUTION: Be sure that at least one user has an access level of 9. Failure to maintain such a user might lock users out of the system and require a system reinstallation.
6. Click **OK** to save the new user properties or **Cancel** to close the dialog box without saving the properties.
7. Repeat this process for all users for whom logins are desired.

   Note: You also can modify or delete users in the Login Properties dialog box whenever buttons are not grayed out.
8. Be sure to save these changes and write the modified configuration file to the CPU.

Note: With the user login function enabled, all newly initiated program sessions will require users to log in before reading or writing configuration data.

Logging in Users for CPU Read/Write Access

When user logins are enabled, the Login dialog box appears whenever you want to read a configuration file from the CPU or write a configuration file to the CPU.

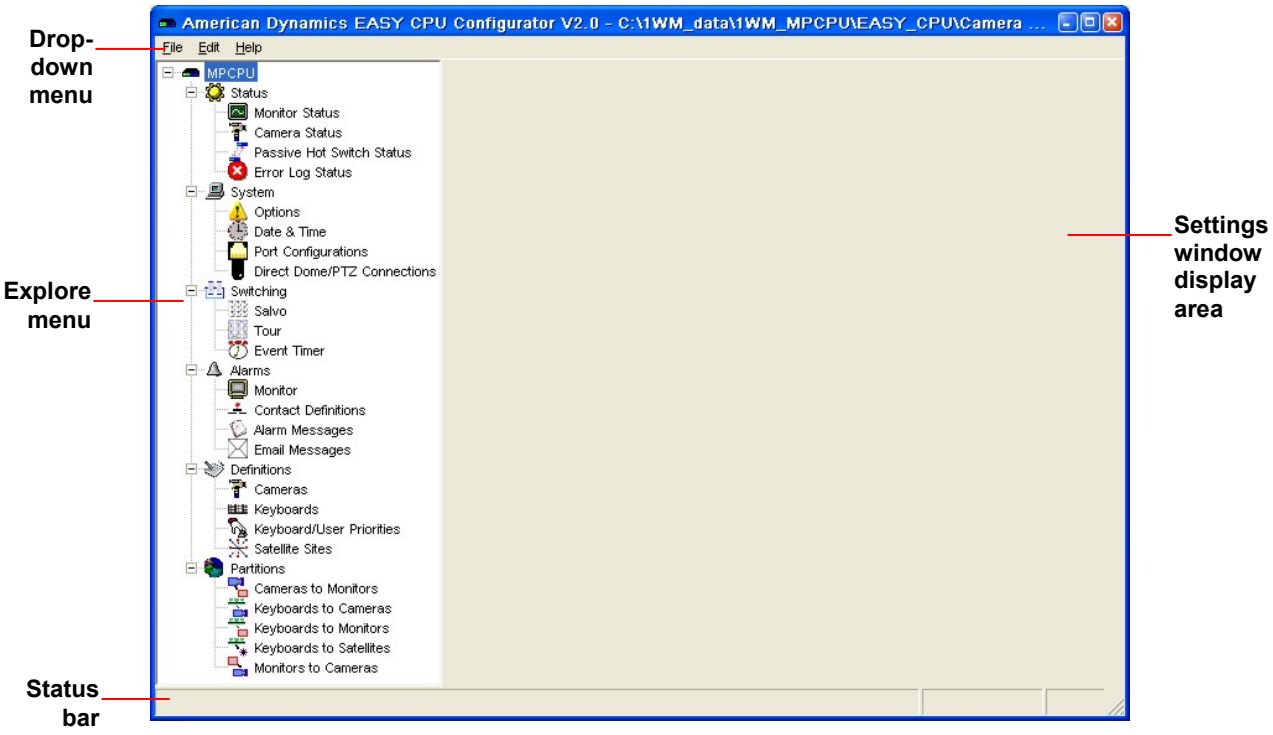
Figure 51. Login dialog

1. In the Login dialog box, enter your user name and password.
2. Click **Logon** to transfer configuration data or **Cancel** to close the dialog box without transferring configuration data.

Programming the MegaPower CPU

EASY CPU allows you to program the MegaPower CPU from a connected PC. When started, the EASY CPU main screen provides links to all setup features.

Figure 52. EASY CPU main screen



EASY CPU Main Screen Overview

The EASY CPU Main Screen contains the following sections:

- Dropdown menus
- Explore menu
- Status bar
- Setting window display area

Dropdown Menus

The dropdown menus across the top of the EASY CPU main screen provide the following options:

File	Edit	Help
• New • Open • Close • Save • Save As • Print • Read • Write • Properties • Exit	• Copy* • Cut • Paste* • Preferences • User Logins	• About EASY CPU Configurator

* To facilitate the configuring of large systems, the copy and paste functions are also capable of duplicating:

- Selected columns of a single row to multiple rows, and
- Selected columns of multiple rows to areas having the same number of rows and columns.

Explore Menu

The **Explore Menu** on the left side of the screen allows you to open screens for setting up the following functions:

- **Status –** The Status function allows you to check the status of monitors, cameras, the passive hot switch and the error log.
- **System –** The System function allows you to set options (site, user logon, snapshots, and CPU addresses), date and time, and port configurations.
- **Switching –** The Switching function allows you to create salvos, tours, and event timers.
- **Alarms –** The Alarms function allows you to create up to four alarm tables for use in event timers. Through contact definitions, you can choose the monitors where alarms will appear. Alarm messages and Email messages also can be displayed for review.
- **Definitions –** The Definitions function allows you to define cameras, monitors, keyboards, keyboard and user priorities, and satellite sites.
- **Partitions –** The Partitions function allows you to associate cameras to monitors, cameras to keyboards, keyboards to monitors, keyboards to satellite sites, and monitors to cameras.

Status Bar

The **Status Bar** at the bottom of the main screen displays information about the currently displayed screen. It also provides progress status when saving or transferring files.

Settings Window Display Area

The **Settings** window displays currently selected screens and dialog boxes. If you see a small triangle

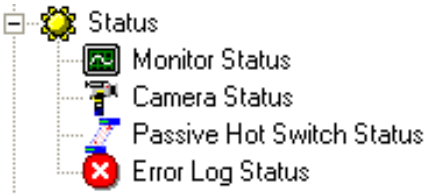
in the heading row for a column, you can click on it to sort the rows according to the number or character sequence in that column.

Note: Whenever you enter a value in a field or checkbox in any EASY CPU screen or dialog box, you must click in a field outside that field or checkbox to set the value just entered.

Checking the System Status

EASY CPU allows you to check the status of monitors, cameras, the passive hot switch, and the error log by selecting the status function. Click on Status links in the Explore menu to begin.

Figure 53. Status links

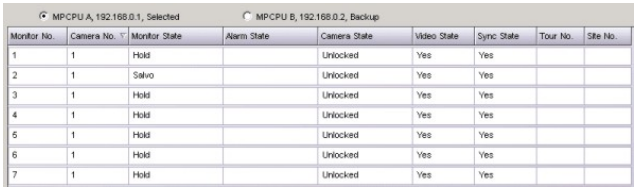


Monitor Status

The Monitor Status screen displays information about each monitor in the system. The information is for reference only and cannot be edited.

Click on the Status – Monitor Status link in the Explore menu to begin. The following screen appears.

Figure 54. Monitor status screen



The Monitor Status screen provides real-time information about the system:

- **MPCPU A / MPCPU B –** Radio buttons that enable you to select and view the status of the monitors connected to the chosen MegaPower CPU.
- **Monitor No. –** Lists every monitor in the system.
- **Camera No. –** Displays the pseudo number of the video input currently called to the monitor. See the **Definitions – Cameras screen** on page 43 to reference video input numbers to pseudo camera numbers.
- **Monitor State –** Indicates whether the monitor is in a Hold, Run, or Salvo state of camera display.
- **Alarm State –** Indicates whether an alarm is currently displayed on the monitor.
- **Camera State –** Indicates whether the currently displayed camera is locked or unlocked.

- **Video State –** Indicates the video loss level detected.
- **Sync State –** Indicates whether a video sync signal is detected.
- **Tour No. –** Indicates the number of a Tour currently loaded or running on the monitor.
- **Site No. –** Indicates the site (1-30) called to the monitor. The MegaPower CPU can control up to 30 sites.

Camera Status

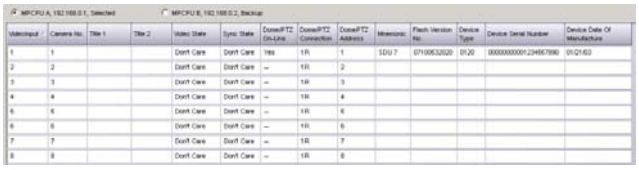
The Camera Status screen displays information about the state and synchronization of each camera's video. The information is for reference only and cannot be edited.

Note: The camera status information is loaded as required. Initially the fields are empty. As you page up or down, the screen will be populated from requests made to the MegaPower CPU unit. This allows you to only view what is needed.

Tool tips pop-up explanations appear whenever the cursor hovers over a column heading.

Click on the Status – Camera Status link in the Explore menu to begin. The following screen appears.

Figure 55. Camera status screen



The Camera Status screen provides the following information:

- **MPCPU A / MPCPU B –** Radio buttons that enable you to select and view the status of the cameras connected to the chosen MegaPower CPU.
- **Video Input –** Displays the number of the physical video input connector on the rear panel of the MegaPower system.
- **Camera No. –** Displays the number that the camera is referenced by on the keyboard and in the EASY CPU configuration.
- **Title 1 –** Displays on the monitor the first line of a camera title when the camera is called.
- **Title 2 –** Displays on the monitor the second line of a camera title when the camera is called.
- **Video State –** Indicates the current video state of the camera:
  - **Yes** – Video is detected
  - **No** – Video loss detected
  - **Don't Care** – Video loss detection not configured, or no communication exists to video loss card.
- **Sync State –** Indicates the synchronization state of the video signal to the selected camera and is used in connection with the video loss setup:
  - **Yes** – Video synchronization present
  - **No** – Video synchronization not present
  - **Don't Care** – Video synchronization portion of the video signal is ignored.

  Note: The camera status screen columns for Dome/PTZ On-line through Device Serial Number are only used for the Dome/PTZ Device Direct Connection to the MP CPU and not for AD2091 or AD2083 connected domes.
- **Dome/PTZ On-Line –** Indicates the on-/off-line status of the dome:
  - **Yes** – Dome/PTZ is currently answering polls
  - **No** – Dome/PTZ has answered polls since system power-on or reset, but is not currently answering polls and has exceeded its retry count
  - **– (dash)** – Dome/PTZ has not answered a poll since power-on or reset
  - **(blank)** – Camera is not configured for a direct MegaPower CPU dome/PTZ connection.
- **Dome/PTZ Connection–** Displays codes identifying the connection type: **M** for Manchester, **S** for SensorNet, and **R** for RS-232/ RS-485.
- **Dome/PTZ Address –** Displays the address configured for the dome.
- **Mnemonic –** Displays a six-character code that identifies the dome type; for example, **SDU 8**.
- **Flash Version No. –** Displays the 14-character dome CPU board firmware version number.
- **Device Type –** Identifies the dome CPU board type; for example, **0150** for SDU 8.
- **Device Serial Number –** Displays the 20-character dome serial number.
- **Device Date of Manufacture –** Displays the eight-character date the dome was manufactured.

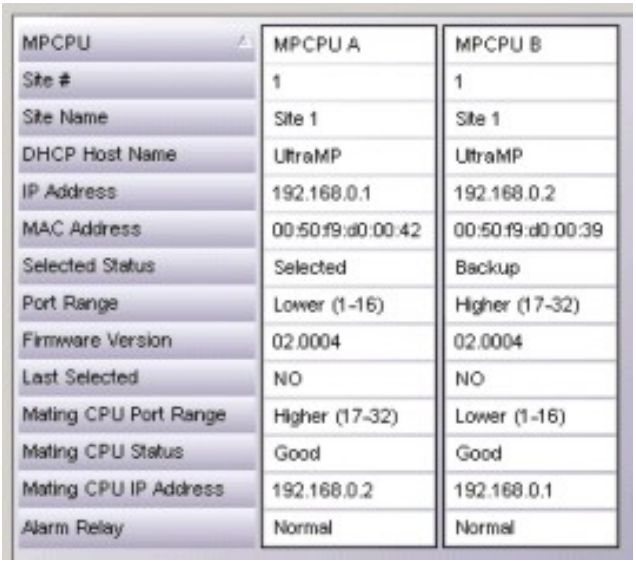
Passive Hot Switch Status

The Passive Hot Switch Status screen displays the real-time status of the passive hot switch between dual MegaPower CPUs. This information is for reference only and cannot be edited. The passive hot switch monitors the status of the MPUs in a dual MegaPower CPU system. If the selected MPU fails, the passive hot switch switches to the non-selected MPU.

If only one MegaPower CPU IP address is specified, the status of that MegaPower CPU is shown. If no MPCPU A or B IP address is specified, the status of the Edit => Preferences default IP address is shown as MPCPU A.

Click on the Status – Passive Hot Switch Status link in the Explore menu to begin. The following screen appears (Figure 56).

Figure 56. Passive hot switch status screen



MPCPU	MPCPU A	MPCPU B
Site #	1	1
Site Name	Site 1	Site 1
DHCP Host Name	UltraMP	UltraMP
IP Address	192.168.0.1	192.168.0.2
MAC Address	00:50:f9:d0:00:42	00:50:f9:d0:00:39
Selected Status	Selected	Backup
Port Range	Lower (1-16)	Higher (17-32)
Firmware Version	02.0004	02.0004
Last Selected	NO	NO
Mating CPU Port Range	Higher (17-32)	Lower (1-16)
Mating CPU Status	Good	Good
Mating CPU IP Address	192.168.0.2	192.168.0.1
Alarm Relay	Normal	Normal

The Passive Hot Switch Status screen provides the following information:

- **MPCPU** – Shows the names of the MegaPower CPUs.
- **Site #** – Site number assigned to the MegaPower CPUs. The site number is configured in the System – Options dialog box. Range: 0-30.
- **Site Name** – Site name assigned to the MegaPower CPU. The site name is configured in the System – Options dialog box.
- **DHCP Host Name** – MegaPower CPU Host name for DHCP IP communications.
- **IP Address** – Ethernet communications IP address.
- **MAC Address** – MAC Address of the MegaPower CPU Ethernet interface.
- **Selected Status:**
  - **Selected** – indicates actively driving the AD Data Lines and the RS-232 port transmitters.
  - **Backup** – indicates standby MegaPower CPU is in the dual hot switch system.
- **Port Range:**
  - **High 17–32** – MegaPower CPU rear slide switch is up selecting com ports 17-32 & ADDL 3-4.
  - **Low 1–16** – MegaPower CPU rear slide switch is down selecting com ports 1-16 & ADDL 1-2.
- **Firmware Version** – Displays the MegaPower CPU firmware version number.
- **Last Selected:**
  - **Yes** – MegaPower CPU was switched to **Selected** by pushing recessed button on unit.
  - **No** – MegaPower CPU was not the last unit set to **Selected** status.
- **Mating CPU Port Range:**
  - **High 17–32** – MegaPower CPU rear slide switch is up selecting com ports 17-32 & ADDL 3-4.
  - **Low 1–16** – MegaPower CPU rear slide switch is down selecting com ports 1-16 & ADDL 1-2.
- **Mating CPU Status:**
  - **Good** – Mating MegaPower CPU operational with heartbeat.
  - **Bad** – Mating MegaPower CPU has faults.
  - **None** – MegaPower CPU ribbon cable connected to itself.
  - **Open** – MegaPower CPU ribbon cable not connected.
  - **Off** – Mating MegaPower CPU not communicating.
- **Mating CPU IP Address** – Ethernet communications IP address of a paired unit in hot switch configuration.
- **Alarm Relay:**
  - **Normal** – Relay center pin connected to NC (normally closed) pin.
  - **Active** – Relay center pin connected to NO (normally open) pin.

Error Log Status

You can view the status of the Error Log by selecting on the Error Log Status screen. The information is for reference only and cannot be edited.

Click on the Status – Error Log Status link in the Explore menu to begin. The following screen appears.

Figure 57. Error log status screen

The Error Log Status screen provides the following information:

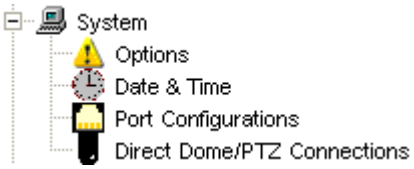
- **MPCPU A / MPCPU B –** Radio buttons that enable you to select and view the error log for the chosen MegaPower CPU.
- **Fault –** An abnormal condition detected by the CPU. The system provides status on up to 12 faults.
- **Count –** Indicates the number of times the fault has occurred.
- **Error Code –** Identifies the fault by number (1,000–-9,999).
- **Message –** Provides a textual description of the fault.
- **Clear** – Clears the error message from the error log status screen and the CPU LCD screen. Click to clear the error message.

Configuring the System

The System function allows you to select sites, enable logon, determine the system date, and configure ports for keyboards, video loss detection, and other devices.

Click on the System links in the Explore menu to begin.

Figure 58. System links

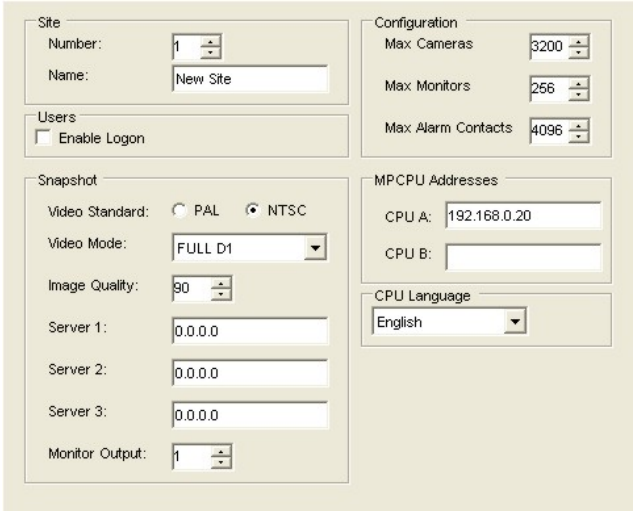


Setting System Options

The System Options function allows you to create site numbers (1-30) and determine their date formats and start dates. This function also allows you to enable or disable the user logon.

Click on the System – Options link in the Explore menu to begin. The following dialog box appears (Figure 59).

Figure 59. System – options dialog



The System – Options screen provides the following options:

- **Site Number –** Allows you to create a numeric identifier for the local site (1–30).
- **Site Name –** Allows you to create a name for the local site. Site names can be any length.
- **Users Enable Logon –** Checkbox implements password protection on system resources, such as cameras and monitors, through keyboards.
  - **Unchecked:** The Definitions – Keyboard/User Priorities screen appears where you can set keyboard priorities.
  - **Checked:** The Definitions – Keyboard/User Priorities screen appears where you can create individual passcodes.
- **Snapshot** – Section that enables you to take and store snapshots of the currently selected monitor after you have installed a TFTP server application.
  - **Installing a TFTP server**:

    A TFTP server application can be downloaded from the Internet. After downloading the application, install it on a PC in the same Ethernet network as the CPUs according to the instructions accompanying the application or installation wizard. Then, configure the application by specifying the TFTP root directory where the Snapshot .jpg files will be stored. Also, enter the range of permitted IP addresses to match the IP addresses of the CPUs in the system.

Note: The TFTP server application must be running in the background of the server for the snapshot feature to work.

– **Taking a Snapshot**:

To take a snapshot, first press **4,** and then press **F1** on a keyboard. The system automatically assigns a file name to the snapshot and saves it in .JPG format to the location defined in the TFTP server.

The file name is in the form:

KB*x*–CAM*z*–*cameratitle*–*yy-mm-dd(hhmmss)*,

where *x* is a number designating the keyboard, and *z* is a number designating the camera. The date can be alternately configured as *dd-mm-yy* or *mm-dd-yy*. The time is *hhmmss*, where *hh* is hours, *mm* is minutes, and *ss* is seconds. If the *cameratitle* is not configured, this part of the file name will not be displayed.

You can choose the video standard, video mode, image quality (in %) and server parameters for the system.

- **Video Standard** – Choose either **PAL** or **NTSC**.
- **Video Mode** – Choose one of the following: **CIF**, **2 CIF Progressive**, **QCIF**, **HalfDI Progressive**, **HalfD1 Interlaced**, **4CIF**, **Full D1**, **VGA**, **SIF**, or **2SIF**.
- **Image Quality** – Choose from **1%** to **100%**.
- **Server 1** – Enter the IP address of the first PC running a server where the snapshot image will be saved.
- **Server 2** – Enter the IP address of the second PC running a server where the snapshot image will be saved. (Backup server if first server is not available).
- **Server 3** – Enter the IP address of the third PC running a server where the snapshot image will be saved. (Backup server if first two servers are not available)

  Note: Although the snapshot image is simultaneously saved to all three servers, it is only accessed from the currently available server.
- **Monitor Output** – Choose the monitor to display the video to be captured in snapshot mode. Choose from **1** to **256**.

– **Viewing a Snapshot**:

To view a snapshot, open Windows Explorer on the PC containing the TFTP server, locate the TFTP root directory, and then double-click on the filename of the image you want to view.

- **Configuration** – Allows you to specify the maximum number of cameras, monitors, and alarm contacts in your system, which limits the overall size of the system database.
  - **Max Cameras** – Allows you to specify the maximum number of cameras that can be used in the system.
  - **Max Monitors** – Allows you to specify the maximum number of monitors that can be used in the system.
  - **Max Alarm Contacts** – Allows you to specify the maximum number of alarm contacts that can be used in the system.
- **CPU Addresses –** Allows you to connect to the local MegaPower CPUs. These CPU addresses must be configured for EASY CPU to communicate with the MegaPower CPU.
- **CPU Language** – Allows you to select the language that will be displayed on the MegaPower CPU LCD screen. The language should correspond to the language defined for EASY CPU.

Setting System Date and Time

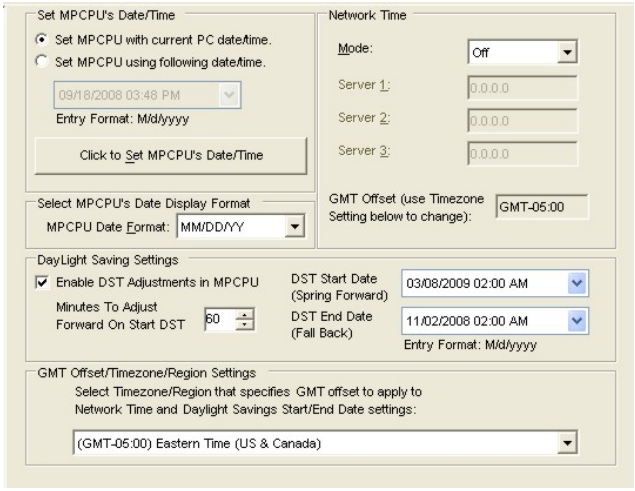
The System Date & Time function allows you to customize the system's date and time or use the PC's current date and time. There are two ways to set the system date and time:

- Using the System – Date & Time dialog box
- Using a keyboard

Setting the Date and Time Using the Dialog Box

Click on the System – Date & Time link in the Explore menu to begin. The following dialog box appears (Figure 60).

Figure 60. System – Date & Time dialog



To set the system date and time, complete the following sections:

- **Set MPCPU's Date/Time** – This section contains the following choices:
  - **Set MPCPU with current PC date/time –** Select this radio button if you want EASY CPU to use the date and time from the PC where it is installed.
  - **Set MPCPU using following date/time –** Select the radio button if you want to customize the date and time. When selected, use the box below this field to input a date and time.
  - When you have chosen your selection, click the Click to Set MPCPU's Date/Time button to set the MegaPower CPUs date and time.
- **Select MPCPU's Date Display Format –** The MPCPU Date Format field in this section enables the date/time display on your video monitors and is necessary when configuring system event timers. Specify the date display format as MM/DD/YY, DD/MM/YY, or YY/MM/DD.
- **Network Time –** Use this section to specify the servers and mode of obtaining the date and time.
  - **Mode –** The Mode field allows you to choose whether the network time is **Off** or **Polling**. Poll mode allows you to poll the network time server for date and time.
  - **Server 1 / 2 / 3 –** Up to three network time servers can be defined by entering their IP addresses. If Server 1 is not available, then Server 2 provides the date/time. If Server 2 is not available, then Server 3 provides the date/time.
  - **GMT Offset –** This field is read-only and displays the GMT offset selected in the GMT Offset/Timezone/Region Settings field.
- **Daylight Saving Settings –** Daylight Savings Time (DST) values are written to the MegaPower CPU, which uses them to determine when to adjust for either DST or Standard Time. This section contains the following choices:
  - **Enable DST Adjustments in MPCPU –** Select this checkbox to enable Daylight Savings Time. If left unchecked, Standard Time is used, and the button and all fields in this section are disabled.
  - **Minutes To Adjust Forward on Start DST –** Use the scroll bar in this field to make fine adjustments to the DST minutes.
  - **DST Start Date (Spring Forward) –** Use the dropdown calendar to choose the appropriate DST start date, or highlight the portion of the date or time to be changed and use the scroll arrows that appear to make the change, or manually enter the start date.
  - **DST End Date (Fall Back) –** Use the dropdown calendar to choose the appropriate DST end date, or highlight the portion of the date or time to be changed and use the scroll arrows that appear to make the change, or manually enter the end date.
- **GMT Offset/Time Zone/Region Settings –** This field allows you to specify the global time zone and region in which you are operating. When a new time zone/region is chosen from the dropdown list, the GMT offset is applied to the network time and DST start and end dates.

Setting the Date and Time Using the Keyboard

Do the following to use the keyboard to set system date and time:

1. Place the keyboard in **Menu** mode.
2. Enter **102**, and then press **Enter** on the keyboard. The monitor will display lines for changing the date and time.
3. Using the keyboard joystick (pan controls) or left/right arrow keys, move to the date/time field that you want to change. The **>** and **<** characters will bracket the field you want to change.
4. Press **Enter** to set the field.
5. Using the joystick (tilt controls) or up/down arrow keys, adjust the field to the desired value.

6. Repeat steps 3 through 5 to set the other date/time fields, as needed.
7. Do one of the following:
   - To save the new date/time settings and then exit, return the keyboard to **Operate** mode.
   - To exit without saving the new settings, press **Clear**, and return the keyboard to **Operate** mode. The monitor displays the original date/time settings.

Setting Port Configurations

Each MegaPower CPU provides the following port types:

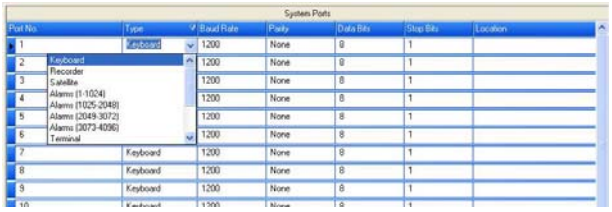
- Keyboard
- Recorder
- Satellite
- Alarms (1–1024)
- Alarms (1025–2048)
- Alarms (2049–3072)
- Alarms (3073–4096)
- Terminal
- Auxiliary
- Video Loss Detection (1–1024)
- Video Loss Detection (1025–2048)
- Video Loss Detection (2049–3072)
- Video Loss Detection (3073–3200)

The Port Configuration setup allows you to identify the device type (keyboard, port expansion module, and others), baud rate, and other communications parameters of each device connected to a port on the CPU.

Important: The MegaPower CPU can support up to 128 keyboards using port expansion modules. Port expansion modules convert a single port into four ports. When a port expansion module is connected to a port, port numbering adds an alpha character (a, b, c, d) to each port number; for example, port one becomes ports 1a, 1b, 1c, 1d; port two becomes ports 2a, 2b, 2c, 2d, and so on.

Click on the System – Port Configurations link in the Explore menu to begin. The following screen appears.

Figure 61. System – port configuration screen



To configure ports, complete the following fields:

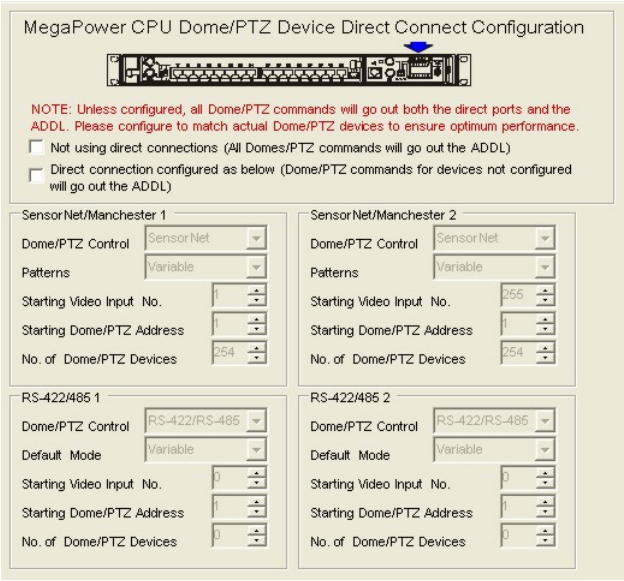
- **Port No. –** Identifies the number of the port on the CPU to which the device is connected. Each available port number expands by four when a port expansion module is connected (see **Important** explanation above).
- **Type –** Identifies the device connected to the port. A predefined dropdown list offers the following options: Keyboard, Recorder, Satellite, Alarms, Terminal, Auxiliary, and Video Loss Detection.
- **Baud Rate –** Identifies the data transmission rate (in bps) of the connected device. Choose from the following: 300, 1200, 2400, 4800, 9600, 19200, and 38400.
- **Parity –** Detects transmission errors. Choose from the following list: None, Odd, or Even.
- **Data Bits –** Identifies the number of bits in each packet of data being transferred. Choose either 7 or 8.
- **Stop Bits –** Signals the end of each character being transmitted. Choose either 1 or 2.
- **Location –** Identifies the physical location of the device. You can type up to 16 characters. However, this field is for informational purposes only, and any device location entered in this field is not transferred to the MegaPower CPU.

Configuring the Dome/PTZ Device Direct Connection

The Dome/PTZ (Pan/Tilt/Zoom) Device Direct Connect Configuration screen allows you to configure the MegaPower CPU to specify the physical connections and protocol that enable commands to be sent to domes connected to the system video inputs.

Click on the System – Direct Dome/PTZ Connections link in the Explore menu to begin. The following screen appears (Figure 62).

Figure 62. Dome/PTZ Device Direct Connect Configuration screen



The Dome/PTZ Device Direct Connect Configuration screen consists of five sections:

- The top section contains two checkboxes that control how connections are generally set up.

  Note: Both checkboxes cannot be checked at the same time.

  – **Neither checkbox checked** – This unconfigured/default state causes the MPCPU to send commands through both the ADDL and the Direct Connect ports according to the default settings.

    ○ The lower four port group's settings are grayed out, and user input to these controls is disabled.

    ○ All values in the lower four port group's controls will be set to the default settings (See Table 1 on page 32 for the default settings values).

    ○ A red warning text appears indicating commands will be sent through both the ADDL and the default direct connections.

  – **Not using direct connections**: When checked, this checkbox causes the MPCPU to send commands only through the ADDL.

    ○ The lower four port group's controls are grayed out, and the user input to the controls is disabled.

    ○ Setting values in the lower four port group's controls are unchanged from what they were before this checkbox was checked.

    ○ The red warning text is not displayed.

  – **Direct connection configured as below**: When checked, this checkbox causes the MPCPU to issue commands out the Direct Connect ports as configured in the lower four port group's control settings. Commands are not sent through the ADDL.

    ○ The lower four port group's controls are now enabled for user input.

    ○ The red warning text is not displayed.

  – **Both checkboxes unchecked from a previously checked state** (return to defaults). If either checkbox is in a checked state and the user unchecks that box:

    ○ A warning message box appears and informs you that unchecking both boxes will return the port group's setting values to the default values.

    ○ If you click OK, the settings for all the controls will be returned to the default values, and the screen will display as described in the **Neither checkbox checked** state above.

    ○ If you click Cancel, the checkbox you are attempting to uncheck will remain checked, and no changes to any of the port group's setting values will occur.

- The bottom four sections (the Port Groups) control the settings for the four MPCPU ports—two SensorNet/Manchester ports and two RS-422/–485 ports. These sections define how video inputs are configured and what connections and protocols the MPCPU should use to send commands to the Dome/PTZ devices connected to the video inputs.
  All the port groups' controls are enabled for user input when the **Direct connection configured as below** checkbox is checked. If the **Not using Direct Connection** checkbox is checked or neither checkbox is checked, the controls are grayed out and disabled from user input.

Table 1 describes the valid setting values that can be specified for the four port groups:

Table 1. Valid Port Group settings

Direct Connect Settings Description	SensorNet/ Manchester 1/2	RS-422/ RS-485 1/2
Dome/PTZ Control: Specifies the port protocol	SensorNet or Manchester	RS-422/-485 or RS-232
Patterns (SensorNet/ Manchester) or Default Mode (RS-422/-485): Specifies whether to use variable or legacy speed patterns	Variable or Legacy	Variable or Legacy
Starting Video Input Number: Physical video connection number that defines start of group of inputs controlled on this port	1 to 3200	1 to 3200
Starting Dome/PTZ Address: The address setting of the first (lowest address) Dome/PTZ connected to video inputs on this port	1 to 254 (SensorNet) or 1 to 64 (Manchester)	1 to 100
No. of Dome/PTZ Devices: The number of Dome/PTZ devices connected to this port.	0 to 254* (SensorNet) or 0 to 64* (Manchester) *See note.	0 to 100* *See note.

Note: The maximum value actually allowed for this setting is the lesser of:

- The nominal maximum value: 254, 64, or 100
  or
- Maximum video inputs (3200) minus **Starting Video Input No.** + 1

Configuring Switching

Switching provides many of the automated functions designed to enhance your video surveillance practices. It allows you to create Salvos and set up Tours that will run automatically. You can also use switching to schedule different alarm monitor/contact tables to become active at different times and days.

Click on the Switching links in the Explore menu to begin (Figure 63 on page 32).

Figure 63. Switching links

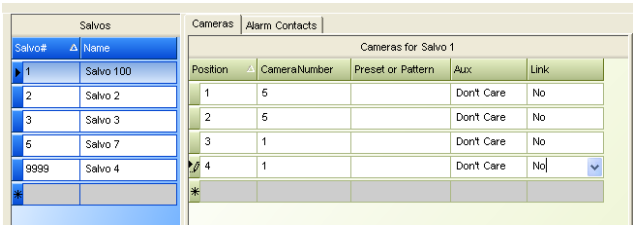
Creating Salvos

A system Salvo is a group of cameras programmed to display simultaneously on a contiguous group of monitors. The MegaPower CPU allows you to create up to 200 Salvos.

You can place up to 16 cameras in each Salvo, with each camera having its own dwell time, Preset view, auxiliary action, and link status. You can also insert a Salvo as the last entry of a Salvo (in place of a camera). This “nesting” of a Salvo within a Salvo expands the number of different camera views.

Click on the Switching – Salvo link in the Explore menu to begin. The following screen appears.

Figure 64. Salvos Camera tab screen



The Salvos screen is divided into two sections:

- The left side, “Salvos,” allows you to create Salvo numbers and names.
- On the right side of the screen, the Cameras tab section allows you to create the entries, cameras, and other actions associated with each Salvo. The Alarm Contacts tab section allows you to specify the alarm contacts associated with the highlighted Salvo.

To create a Switching Salvo, complete the following fields. To create additional Salvos, click on the asterisk in the header of the last row displaying a Salvo.

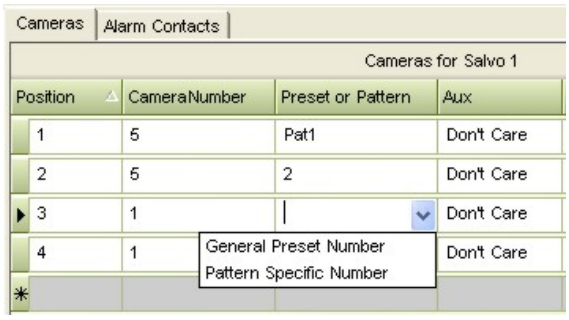
- **Salvos Number –** Enter an identifying number for a Salvo in the range of 1–9999. If you enter a Salvo number that already exists, you will be prompted to choose another Salvo number or delete the existing one prior to using the value for a new Salvo definition.

You can change an existing Salvo number. If the new Salvo number already exists, you will be prompted to choose another number or delete the existing one prior to using the new Salvo number.

Any cameras and/or alarm contacts assigned to the previous Salvo number will remain assigned to the new Salvo number. Also, any references to the previous Salvo number in the Alarms – Contact Definitions screen will be changed to reference the new Salvo number.

- **Salvos Name –** Enter a descriptive name for the each Salvo. The name represents different actions to be performed when the Salvo runs. Define the characteristics of each entry by completing the remaining fields on this screen.
- **Cameras Tab –** The Cameras tab contains the following fields:
  - **Position** – An automatically assigned number that identifies the location of the camera for the Salvo.
  - **CameraNumber** – Identifies by its pseudo number the camera to be used in the salvo. If the **Link** field is set to **Salvo**, the number in this field refers to the Salvo number.
  - **Preset or Pattern –** Identifies a Preset (0-96) or a Pattern (0-3) associated with the camera to be displayed. Enter the number of a Preset or Pattern for the corresponding CameraNumber field as follows:

Figure 65. Salvos Preset or Pattern Dropdown List



    - For a Preset number, enter a numeric value into the Preset or Pattern field. Ensure there is no prefix displayed as part of the numeric value entered. If the “Pat” prefix is displayed, select “General Preset Number” from the dropdown list to remove it.
    - For a Pattern number, enter a numeric value, and then select “Pattern Specific Number” from the dropdown list. The numeric value entered will now contain a “Pat” prefix.

    (See the *MegaPower CPU Operator’s Guide*, 8200-0421-02, for more information on Presets.)
  - **Aux –** Identifies an auxiliary device to be included as an action and determines the state that the auxiliary will switch to when the Salvo runs. To determine whether an auxiliary operates when a Salvo runs, select one of the following:
    - **Don’t Care** – Ignores the auxiliary
    - **Aux 1-4 On** – Activates auxiliaries 1, 2, 3, or 4 when the Salvo runs
    - **Aux 1-4 Off** – Deactivates auxiliaries 1, 2, 3, or 4 when the Salvo runs
  - **Link –** Determines the next action associated with the Salvo. Select one of the following.
    - **Yes –** Causes the next camera entry in the Salvo to be called to the next continuous monitor
    - **No –** Causes the Salvo to stop at the camera position chosen above
    - **Salvo –** Calls another Salvo to run and stops the current Salvo
- **Alarm Contacts Tab –** The Alarm Contacts tab shows the contact definitions that are assigned to the Salvo. This tab is read-only. You must use the Alarms – Contact Definitions screen to assign a contact definition to a Salvo.
  Note: Only contact definitions with Link values of “Salvo” and “Salvo Group Ack” will be assigned the Salvo Number specified in the Alarms – Contact Definitions screen “Camera or Salvo” field.
  The Alarm Contacts tab contains the following fields:

Figure 66. Salvos Alarm Contacts tab screen

  - **Contact No. –** Number of the alarm contact associated with the salvo
  - **Preset or Pattern** – Pattern or preset number associated with the salvo
  - **Link –** Choose either Salvo or Salvo Group Ack
  - **Aux –** Choose either Don’t Care, Aux 1 On, Aux 1 Off, Aux 2 On, Aux 2 Off, Aux 3 On, Aux 3 Off, Aux 4 On, or Aux 4 Off
  - **Dwell –** Enter the time, in seconds, the salvo will display on the set of monitors

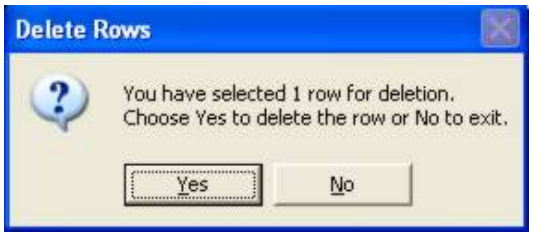
- **Alarm Message –** Enter the alarm message number to be associated with the salvo. **Note**: Alarm messages are first created in the Alarms **–** Alarm Messages screen.
- **Email Message –** Enter the Email message number to be associated with the salvo. **Note**: Email messages are first created in the Alarms – Email Messages screen.

Deleting Salvos or Alarm Contacts

To delete a Salvo or an alarm contact definition:

1. Click the header of the row that contains the Salvo or alarm contact definition to be deleted.
2. Press the keyboard **Delete** key of the PC running EASY CPU. The Delete Rows dialog box appears.

Figure 67. Delete Rows dialog



3. Click **Yes** to delete the Salvo or alarm contact definition or **No** to close the dialog box without deleting the Salvo or definition.

Creating Tours

A system Tour is a programmed sequence of different camera views switching one after another on a monitor. Tours provide an efficient way for operators to see multiple areas of interest without having to call up cameras manually.

You can call Tours to run on any monitor using keyboard commands or schedule them to run automatically by placing them within Event Timers (see **Event Timers** on page 35).

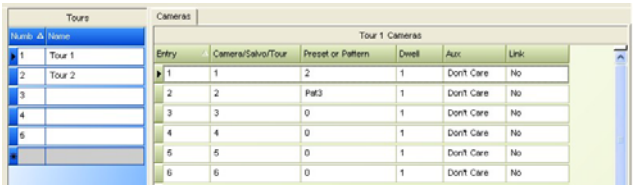
You create System Tours by identifying each camera action to run, the order in which each action will appear on the monitor and the length of time the action is to remain on the monitor before switching (dwell time).

Key points to remember when programming Tours:

- The system allows 64 system Tours, and every Tour can include up to 64 Tour entries.
- Tours can include Salvos, Presets, Patterns, auxiliaries, and other Tours as entries.
- Any camera specified on one Tour entry can be repeated on another entry using a different dwell time, Preset, or auxiliary.

Click on the Switching – Tour link in the Explore menu. The following screen appears.

Figure 68. Tours screen

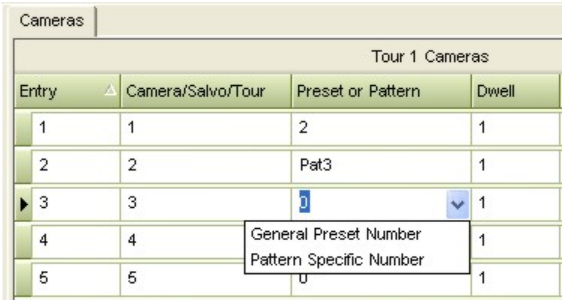


The Tours screen is divided into two sections. The left side, “Tours,” allows you to create tour numbers and names. The Cameras tab section on the right side of the screen allows you to create the entries, cameras, and other actions associated with each Tour.

To create Tours, complete the following fields. To create additional Tours, click on the asterisk in the header of the last row displaying a Tour.

- **Tours Section**
  - **Numb –** Assign a unique number to the Tour.
  - **Name –** Create a name for the Tour using as many characters as needed.
- **Cameras Tab** – Click the Camera tab and complete the following fields:
  - **Entry –** Click on the row beneath **Entry** and type a number to identify this entry. You will define the characteristics of this entry by completing the remaining fields across this row.
  - **Camera/Salvos/Tour** – Enter the pseudo number of a desired camera. If the **Link** field is set to **Salvo** or **Tour**, the number in this field respectively refers to the Salvo number or Tour number.
  - **Preset or Pattern** – Indicates a Preset (0-96) or a Pattern number (0-3) assigned to the camera number selected above. Enter the number of a Preset or Pattern for the corresponding Camera/Salvos/Tour field as follows (Figure 69):

Figure 69. Tours Preset or Pattern Dropdown List



- For a Preset number, enter a numeric value into the Preset or Pattern field. Ensure there is no prefix displayed as part of the numeric value entered. If the “Pat” prefix is displayed, select “General Preset Number” from the dropdown list to remove it.
- For a Pattern number, enter a numeric value, and then select “Pattern Specific Number” from the dropdown list. The numeric value entered will now contain a “Pat” prefix.

(See the *MegaPower CPU Operator’s Guide*, 8200-0421-02, for more information on Presets.)

– **Dwell –** Indicates the number of seconds (0-61) that any Tour entry is to be displayed on the monitor.

– **Aux –** An auxiliary is a device (such as a light) that can be activated when a Tour entry activates. The MegaPower CPU recognizes up to four auxiliaries per camera. To determine whether an auxiliary operates when a Tour runs, select one of the following:

- **Don’t Care –** Ignores the auxiliary
- **Aux 1-4 On –** Activates auxiliaries 1, 2, 3, or 4 when the Tour runs
- **Aux 1-4 Off –** Deactivates auxiliaries 1, 2, 3, or 4 when the Tour runs

– **Link –** The Link function links the Tour entry to the next entry on the screen. Options are:

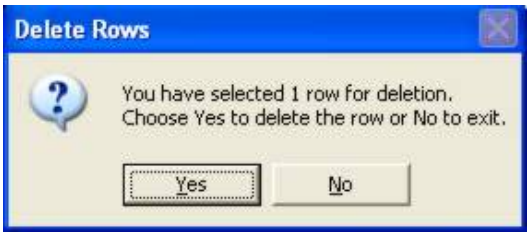
- **Yes –** Calls the next Tour entry to the next contiguous monitor. By doing so, the user is simulating a Salvo.
- **No –** Calls the next Tour entry to the monitor originally called in the Tour
- **Salvo –** Calls the first entry of a pre-programmed Salvo to the monitor (each of the Salvo’s remaining entries will appear on contiguous monitors)
- **Tour –** Calls another pre-programmed Tour to the monitor originally called

Deleting Tours or Cameras

To delete a Tour or a camera definition:

1. Click the header of the row that contains the Tour or camera definition to be deleted.
2. Press the keyboard **Delete** key of the PC running EASY CPU. The Delete Rows dialog box appears.

Figure 70. Delete Rows dialog



3. Click **Yes** to delete the Tour or camera definition or **No** to close the dialog box without deleting the Tour or definition.

Event Timers

Event Timers – Alarm Tables

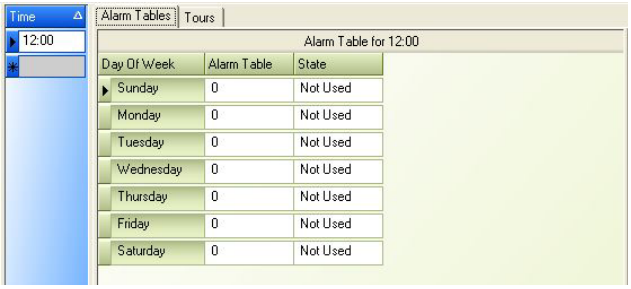
Alarm Monitor/Contact Tables determine how the system will respond to alarms and where the alarm video will appear. The MegaPower CPU provides one default Alarm Monitor/Contact table and allows you to create four additional Alarm Monitor/Contact tables associating different alarm contacts with different monitors.

Using Event Timers, you can schedule any of the four Alarm Monitor/Contact tables to become active on different days and at different times.

For more information on Alarm Monitor/Contact tables, refer to **Creating Alarm Monitor/ Contact** Tables on page 40.

Click on the Alarm Tables tab in the Switching – Event Timer link in the Explore menu to begin. The following screen appears.

Figure 71. Event timer–Alarm Tables tab screen



To schedule Alarm Monitor/Contact tables, you will need the following information:

- The hour of the day/night you want the table to be active
- The day(s) of the week you want the table to be active
- The number of the desired alarm table

To create an Event Timer for alarms, complete the following fields:

- **Time –** Select the hour and minute that you want the alarm table to become active.
- **Alarm Tables**
  - **Day of Week** – Displays the days of the week
  - **Alarm Table** – Click on the field and select the desired alarm table (0-4)
  - **State** – Select one of the following:
    - **Disabled** – Event timer is disabled for the day set in column 1
    - **Enabled** – Event timer is enabled for the day set in column 1
    - **Not Used** – Event timer is not used for the day set in column 1

Event Timer – Tours

Event Timers enable the automatic call up of Tours and alarm monitor/contact tables on specific days at specific times. By scheduling these activities to occur automatically, you can help ensure the surveillance of key areas at important times. The MegaPower CPU allows you to create 35 Event Timers.

Click on the Tours tab in the Switching – Event Timer link in the Explore menu to begin. The following screen appears.

Figure 72. Event timer–Tours tab screen

Scheduling System Tours with the Event Timer

To schedule system Tours using the event timer feature, you will need the following information:

- The number of the system Tour you want to run
- The number of the monitor you want to display the system Tour
- The day(s) of the week you want the Tour to run
- The hour of the day or night you want the Tour to run

To create a system Tour using the Event Timer, click on the Tours tab and complete the following fields:

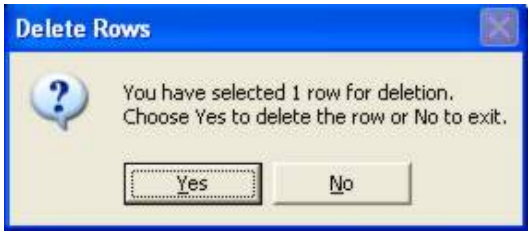
- **MonitorNumber –** Number of the monitor where the tour is to be displayed
- **Sunday** through **Saturday –** Day of the week on which the tour is to run

Deleting Tours in the Event Timer Screen

To delete a Tour in the event timer screen:

1. Click the header of the row in the left screen that contains the time of the Tour to be deleted.
2. Click the header of the row in the right screen that contains the Tour to be deleted.
3. Press the keyboard **Delete** key of the PC running EASY CPU. The Delete Rows dialog box appears.

Figure 73. Delete Rows dialog



4. Click **Yes** to delete the Tour or **No** to close the dialog box without deleting the Tour.

Configuring Alarms

The MegaPower CPU can respond to 4,096 alarms by calling cameras, salvos, or Presets to armed monitors and turning auxiliary devices on or off. These alarm responses are defined in tables called Alarm Monitor/Contact Tables.

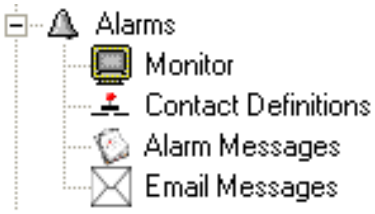
EASY CPU provides one master Alarm Monitor/Contact Table and four additional tables for customizing monitor assignments. The master Alarm Monitor/Contact Table conforms to the site configuration of alarms and their associated cameras and auxiliary devices. You should alter this table only if the site configuration changes or in the event of errors in previous data entries.

Each of the additional tables contains the same associations of alarms to cameras, salvos, presets and auxiliary devices as the master Alarm Monitor/Contact Table. The difference between the master table and any of the additional tables is in the association of monitors to each alarm. You can change the monitor associations in any of the additional tables.

The system routes alarms to monitors depending on which Alarm Monitor/Contact Table is active at the time of the alarm. You can schedule Alarm Monitor/Contact Tables to become active automatically through Event Timers (see page 35).

Click on the Alarms links in the Explore menu to begin (Figure 74 on page 37).

Figure 74. Alarms links

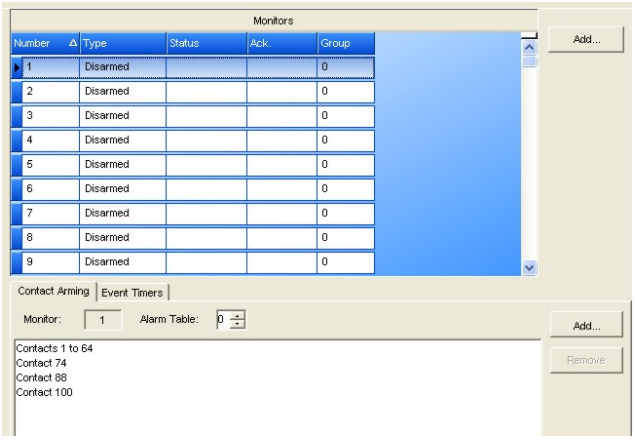


Setting Up Alarm Monitors

The Alarms–Monitor screen allows you to arm monitors to respond to alarms. You can arm each monitor by setting up methods for displaying, queuing, and clearing alarms.

Click on the Alarms–Monitor link in the Explore menu to begin. The Monitors screen appears.

Figure 75. Alarms – Monitor screen



The Alarms–Monitor screen is split into an upper and lower screen. The upper screen shows existing monitor definitions and allows you to add new definitions.

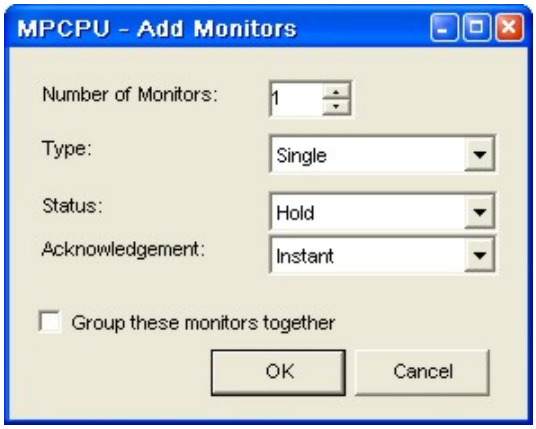
The lower screen provides two tabs that allow you to:

- Add contact arming to selected monitors.
- View or delete event timers associated with selected monitors.

Adding Monitor Definitions

To create monitor definitions, click **Add** on the right side of the Alarms-Monitor screen. The Add Monitors dialog box appears.

Figure 76. Add Monitors dialog



To add monitors, complete the following fields:

- **Number of Monitors** – Enter the number of the monitor you want to define. The system will number monitors consecutively starting with the next highest available number.

  If you plan to group several monitors together, select a range of monitors.

- **Type** – Defining the type of monitor determines how the monitor treats incoming alarms. From a dropdown list, you can define each monitor as:
  - **Single** – incoming alarms are displayed on a single monitor. Multiple alarms received at a single monitor will be either sequenced or held based on the monitor's alarm queuing method. For an explanation of alarm queuing methods, refer to **APPENDIX H: Monitor Arming Methods** on page 74.
  - **Block –** incoming alarms are displayed on a block (group) of monitors with which they are associated. The first incoming alarm is displayed on the first (lowest numbered) monitor of the block. The second alarm is displayed on the next lowest numbered monitor of the block, and so on. When all monitors in a given block are displaying alarm video signals, all subsequent alarms are either held in queue or sequenced until the displayed alarms are cleared depending on the monitor alarm queuing method.
  - **Dual Hold** – an incoming alarm is displayed and held on the first of the pair of monitors until cleared. All subsequent alarms are queued in order on the second monitor until the current held alarm is cleared from the first monitor. As alarms are cleared off the first monitor, the *stacked* alarms on the second monitor are then transferred to the first monitor.
  - **Dual Sequence** – an incoming alarm is displayed and held on the first of the pair of monitors until cleared. All subsequent alarms are queued in order on the second monitor until the current held alarm is cleared from the first monitor. As alarms are cleared off the first monitor, the *sequenced* alarms on the second monitor are transferred to the first monitor.
  - **Disarmed** – The monitor does not receive alarms.
- **Status** – From a dropdown list, you can define the selected monitor for either hold or sequence status.
  - **Hold** – Alarm remains on the monitor until cleared
  - **Sequence** – Alarms are sequenced on the monitor until cleared
- **Acknowledgement** – The Acknowledgement field allows you to determine how alarms will be cleared for the selected monitor. Options are:
  - **Instant** – an alarm resets immediately at its source when the triggering device returns to normal. For example, a door opens and activates the alarm: Closing the door clears the alarm instantly. An operator can manually override this alarm.
  - **Auto** – an alarm resets at its source after a 20-second delay. For example, a door opens and activates an alarm. The door is closed immediately, but the alarm will not clear unless the door remains closed for a 20-second interval. An operator can manually override this alarm.
  - **Manual Ack.** – an operator must clear the alarm using a keyboard command.
  - **Instant No Ack.** – Alarm resets instantly after alarm condition goes away. No acknowledgement from the operator is permitted.
  - **Auto No Ack.** – Alarm resets 20 seconds after alarm condition goes away. No acknowledgement from the operator is permitted.
- **Group these monitors together**
  You can define several monitors as a group (or block) for the purpose of displaying multiple cameras or Salvo alarms. To create a group:
  1. Select a range of monitors in the Number of Monitors field.
  2. Select **Block** in the Type field.
  3. Click the box next to "Group these monitors together."

Click **OK** to display the new monitor arming configuration or **Cancel** to close the dialog box without displaying the monitor arming configuration. Remember to save and transfer your changes before closing EASY CPU.

After clicking **OK,** the system will automatically assign the same group number to each monitor in the group. The group number will be the same as the first monitor number in the group.

For example, suppose you create a group comprised of five monitors starting at monitor number 12. The system will assign monitor numbers 12, 13, 14, 15, and 16 to the five monitors, but they will share the number 12 as their group number.

Even though monitors are assigned in a contiguous block, the armed monitors can be selectively disarmed by changing the Type field to "Disarmed" for each one that you do not want to be armed. However, you cannot interleave monitor blocks.

Contact Arming

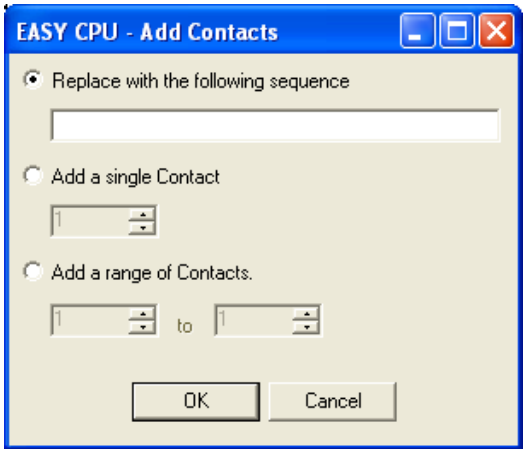
The Contact Arming screen enables you to assign a group of contacts in an alarm table to a monitor.

Figure 77. Contact Arming screen

To begin assigning a group of contacts to a monitor from the Alarms – Monitor screen:

1. Click on a monitor.
2. Click the Contact Arming tab. The selected monitor number appears just below the tab in the Monitor field.
3. Click **Add** on the right side of the screen. The Add Contacts dialog box appears (Figure 78 on page 39).

Figure 78. Add Contacts dialog



The Add Contacts dialog provides three options.

1. To select an option, click the button beside the option, and complete the required information. Options are:
   - **Replace with the following sequence** – enter a range of monitors, for example, 1-256.
   - **Add a single Contact** – Click the up or down arrows to select a contact.
   - **Add a range of Contacts** – Click the up or down arrows on the “from” and “to” fields to select a range of contacts.
2. Click **OK** to save your contact choices or **Cancel** to close the dialog box without saving your choices.

Deleting Contacts

To delete contacts assigned to a monitor as defined in the Contact Arming tab, do the following:

1. In the upper screen, click on the monitor that contains the contact(s) to be deleted.
2. Click on the contact(s) in the lower screen to be deleted, and then press **Remove** on the right side of the screen.

Event Timers

The Event Timers tab in the Alarms – Monitor screen allows you to view and delete event timer information that is associated with selected monitors.

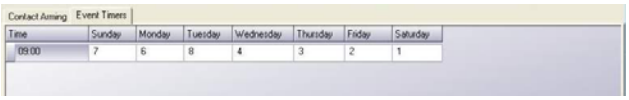
Note: Event timers displayed in this screen are for information only, and they cannot be added or edited here. You must define event timers in the Switching – Event Timer screen as described on page 35.

Viewing Event Timers

To view event timer information from the Alarms – Monitor screen:

1. Click on a monitor in the upper screen.
2. Click the Event Timers tab on the Alarms – Monitor screen.

Figure 79. Event timers screen

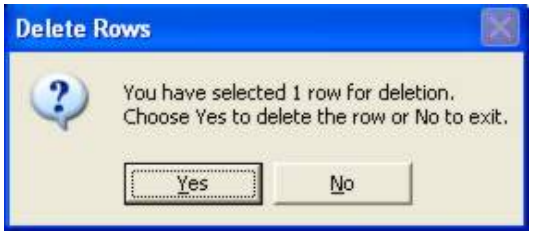


Deleting Event Timers

To delete an event timer definition:

1. Click on a monitor in the upper screen.
2. Click the header of the row in the lower screen that contains the event timer definition to be deleted.
3. Press the keyboard **Delete** key of the PC running EASY CPU. The Delete Rows dialog box appears.

Figure 80. Delete Rows dialog



4. Click **Yes** to delete the event timer definition or **No** to close the dialog box without deleting the definition.

Creating Alarm Monitor/ Contact Tables

Alarm Monitor/Contact Tables allow you to associate alarm contacts with cameras or Salvos, Presets, and auxiliaries. You can set the alarm dwell time, auxiliary states, connections, and the locations of each alarm contact.

Click on Alarms – Contact Definitions to begin. The following screen appears (Figure 81).

Figure 81. Alarms – contact definitions screen

To create Alarm Monitor/Contact Tables, complete the following fields:

- **Contact No. –** Determined by the following:

  MPCPU port designation Alarms (1-1024), Alarms (1025-2048), Alarms (2049-3072), or Alarms (3073-4096), **and either**:

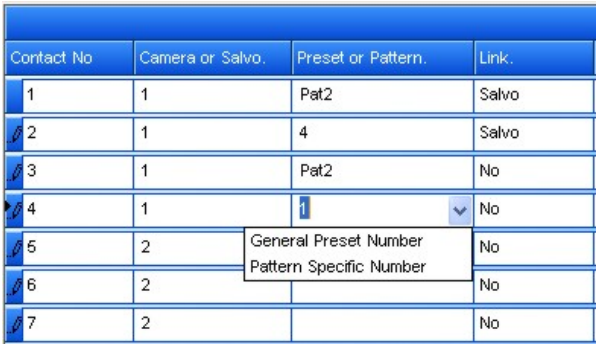
  – The physical contact point on the AD2096A Alarm Interface Unit and the AD2096A DIP-switch settings, **or**

  – The dome address and the AD2083-xx RS-422 Distributor's DIP-switch setting for the Number of Alarm Contacts per Dome

- **Camera or Salvo –** Specifies the camera pseudo number or Salvo to be called when the alarm activates. If the **Link** field is set to **Salvo** or **Salvo Group Ack**, the number in this field refers to the Salvo number.

- **Preset or Pattern –** Indicates a Preset (0-96) or a Pattern number (0-3) assigned to the camera number or Salvo selected above. Enter the number of a Preset or Pattern for the corresponding camera number or Salvo field as follows:

Figure 82. Contact Definitions Preset or Pattern Dropdown List



  – For a Preset number, enter a numeric value into the Preset or Pattern field. Ensure there is no prefix displayed as part of the numeric value entered. If the "Pat" prefix is displayed, select "General Preset Number" from the dropdown list to remove it.

  – For a Pattern number, enter a numeric value, and then select "Pattern Specific Number" from the dropdown list. The numeric value entered will now contain a "Pat" prefix.

  (See the *MegaPower CPU Operator's Guide*, 8200-0421-02, for more information on Presets.)

- **Link –** Allows linking of a contact definition to another contact definition, salvo, or wired set of alarm contacts. Linked options are:

  – **No** - Indicates that the alarm contact entry either is not linked with another alarm contact or is the last entry of a linked group of alarm contacts.

  – **Yes** - Indicates that the alarm contact entry will be linked to the next alarm contact entry programmed into the system. A group of contacts linked in this way emulates a system Salvo (more than one camera action runs in response to an alarm).

  – **Salvo** - Indicates that the alarm contact entry will call a Salvo to a block of monitors.

  – **Wired** - Indicates that the alarm contact entry will be linked to the following entry in a wired set. A wired set is a set of alarm contacts.

When any member of the set is activated, all members of the set are activated.

Each member of a wired set must be designated as “Wired Set” or “Wired Group Ack,” except the last member of the set, which must be designed as “No,” “No Group Ack,” “Salvo,” or “Salvo Group Ack.”

– **No Group Ack, Yes Group Ack, Salvo Group Ack, Wired Group Ack** – When an alarm is cleared manually by a keyboard operator, all alarms in the wired set are cleared.

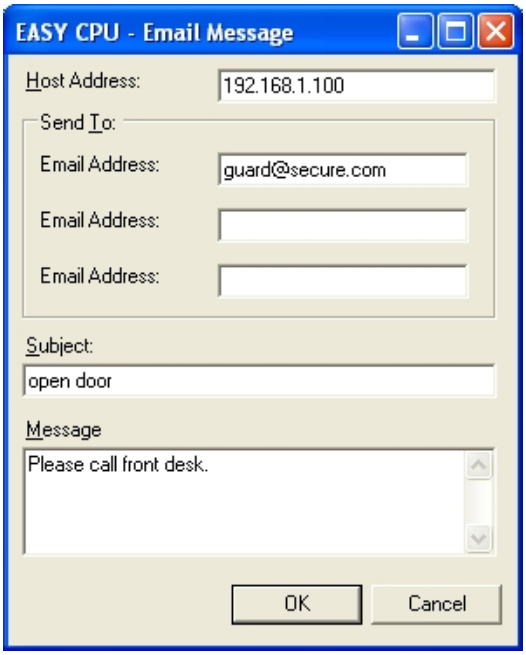
- **Aux –** Identifies an auxiliary device to be included as an action when this alarm activates. Choose from the following:
  – **Don’t Care –** Ignores the auxiliary
  – **Aux 1-4 On –** Activates auxiliaries 1, 2, 3, or 4 when an alarm is triggered
  – **Aux 1-4 Off –** Deactivates auxiliaries 1, 2, 3, or 4 when an alarm is triggered
- **Dwell –** When the monitor is armed to sequence alarms, the dwell time specifies how long an alarm stays on screen before the next alarm in queue takes its place. Options are 1-60 seconds.
- **Alarm Message –** Message that appears on a given monitor when an alarm is activated. Alarm messages are created in the Alarm – Alarm Messages screen.

  After the alarm message is created, enter the alarm message number in the Alarm Messages field of the Alarm – Contact Definitions screen.
- **Email Message –** Text of Email message delivered to recipients designated in the Alarms – Email messages screen (Figure 86). A message can be sent to any designated Email address in the event of an alarm.

  To create an Email message, click on the Email Message field and the following appears:

  – **<<Add New…>> –** When you select this, click again outside this field and the following dialog box appears (Figure 83).

Figure 83. Email Message dialog



1. To prepare an Email message, complete the following fields in the dialog box:
   – **Host Address –** Enter the IP address of the host Email server.
   – **Send To: –** Section that allows up to three Email addresses to be designated.
   – **Email Address –** Enter each Email address that you want the message to go to.
   – **Subject –** Enter a subject line that briefly describes the action to take in the event an alarm occurs.
   – **Message –** Add descriptive text that will help the reader to understand what needs to be accomplished.
2. Click **OK** to save and close the dialog box.

- **Alarm Trigger –** Enables the configuring of dome input alarms. The first two columns, Dome and Dome Input can be edited while the third column, Video Loss Camera (range) is read-only.

Figure 84. Alarm Trigger Columns

– **Dome –** Enter a Camera Number (pseudo number) of a dome configured for input alarming (1-9999).

– **Dome Input –** Enter a value in the range of 1-4. This entry is the dome input alarm contact number.

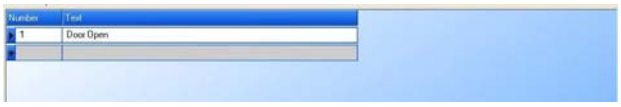
– **Video Loss Camera (range) –** This column is read-only and displays any camera ranges that have a video loss contact set. These contact sets are configured in the Definitions – Cameras screen.

Alarm Messages

The Alarms – Alarm Messages screen allows you to enter the text for an alarm message and assign a number to this alarm message. The alarm message can be up to 16 characters in length. The number assigned to the message can then be entered in the Alarm Messages field of the Alarms – Contact Definitions screen.

This message text appears on a monitor when the monitor is in an alarm state.

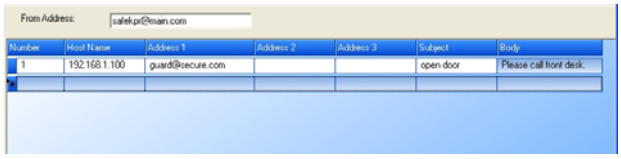
Figure 85. Alarms – alarm messages screen



Email Messages

The Alarms – Email Messages screen (Figure 86) allows you to create an Email message that can be sent to up to three Email addresses in the event of an alarm.

Figure 86. Alarms – Email messages screen



Complete the following fields:

- **From Address** – Enter the Email address of the account sending the Email.
- **Number** – Enter an identification number for the Email message.
- **Host Name** – Enter the IP address of the host Email server.
- **Address 1** – Enter the Email address of the 1st person that you want the message to go to.
- **Address 2** – Enter the Email address of the 2nd person that you want the message to go to.
- **Address 3** – Enter the Email address of the 3rd person that you want the message to go to.
- **Subject** – Enter the subject text that you want to appears in the subject header of the Email message. The subject can contain a maximum of 16 characters.
- **Body** – Enter the text of the Email message.

Defining System Devices

The definitions section of EASY CPU allows you to identify, define, and set up cameras, keyboards, satellite sites, and recording devices. Click on the Definition links in the Explore menu to begin.

Figure 87. Definitions links

Defining Cameras

The Definitions – Cameras screen allows you to create pseudo camera numbers, camera titles, and title positions on the monitor display. You can also identify the remote site that provides the video trunk to the selected local camera input, the remote monitor output, the type of camera, and its location.

Additionally, when you define cameras, you can also set up alarm contacts and Salvo call-ups.

Tool tips pop-up explanations appear whenever the cursor hovers over a column heading.

Click on the Definitions – Cameras link in the Explore menu to begin. The following screen appears.

Figure 88. Definitions – Cameras screen

The Definitions – Cameras screen can be split into an upper and lower screen.

- The upper screen shows existing camera definitions and allows you to add new definitions.

  All of the fields can be edited except the Dome/PTZ Connection and Dome/PTZ Address, which are read-only fields. The Dome/PTZ Connection field displays codes identifying the connection type: **M** for Manchester, **S** for SensorNet, and **R** for RS-232/ RS-485. This field is also highlighted in red if the connection is configured to go out the ADDL. The Dome/PTZ Address shows the address configured for the dome.

  The Calling Contacts and Salvo Contacts fields only display a range value until selected for edit.

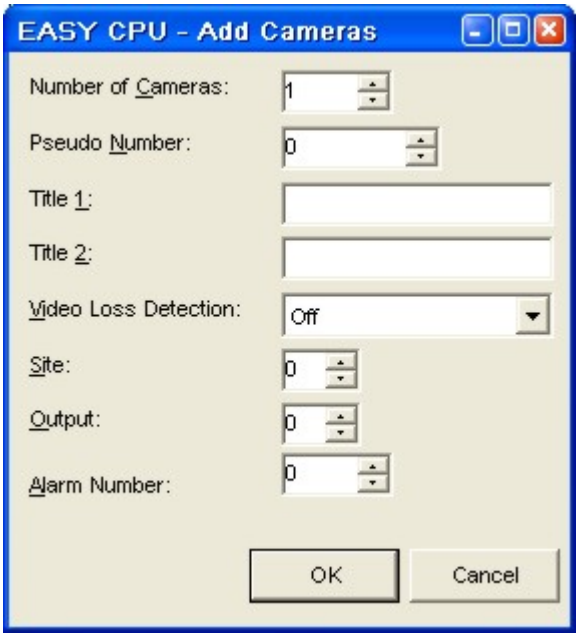
- The lower screen only appears when either the Calling Contacts field or Salvo Callups field is selected, and provides a tab that allows you to do the following:
  - **Calling Contacts** – View and edit alarm contacts associated to call a camera. See **Adding and Deleting Calling Contacts to Cameras** on page 44.
  - **Salvo Callups** – View and edit Salvo call-ups associated with selected cameras. See **Associating Salvo Callups to Cameras** on page 45.

Adding Camera Definitions

You can create and edit camera definitions.

1. To add new camera definitions, click **Add** on the right side of the screen. The Add Cameras dialog box appears.

Figure 89. Add Cameras dialog



2. Complete the following fields:
   - **Number of Cameras –** Enter the number of cameras you want to define. The system will number these cameras consecutively starting with the next highest available number. Camera numbers identify the video input connection number on the switcher.

     Note: If multiple cameras are defined at the same time, they share the same video loss detection, site, output, pan/tilt, alarm number, and location. You can edit each camera's definition after they have been created.

   - **Pseudo Number –** Pseudo numbers are unique identifiers you can give cameras to help identify their location or purpose. For example, you could number the cameras on the first floor of a building starting with 1000, such as: 1001, 1002, 1003, etc. You could use 2000 for second floor cameras, 3000 for third floor cameras and so on.

     The pseudo number is assigned starting with the first camera you specify and is incremented by 1 for each additional camera specified.

Note: By default, pseudo numbers in this dialog box match the physical camera numbers. In all other screens and dialogs, references to camera numbers are actually references to the defined pseudo numbers.

- **Title 1 –** You can create a two-line title for each camera that will display on the monitor when the camera is called. Title 1 is the upper line of the title and can be up to eight characters or digits in length with the pseudo number appended to the title. Titles over eight characters are truncated.
- **Title 2 –** Title 2 allows you to create the lower line of a two-line camera title. Title 2 can be up to eight characters or digits in length.
- **Video Loss Detection –** Provides video loss detection alarming. You can set video loss detection for the following conditions:
  - **Off –** Video loss detection not enabled
  - **Sync** – To detect the presence or loss of the synchronized portion of the video signal
  - **Low** – To detect low picture content
  - **Medium** – To detect medium picture content
  - **High** – To detect high picture content

  Note: For detailed information on configuring for video loss detection, go to **APPENDIX F: Configuring Video Loss Detection** on page 71.
- **Site –** Identifies the remote site that provides the video trunk inputs to the selected local camera.
- **Output –** Identifies the monitor output from the remote site that is connected to the selected local camera input.
- **Alarm Number** – Specifies an alarm contact number to activate when video loss is detected on this video input. See alarm contact definitions and **APPENDIX F: Configuring Video Loss Detection** on page 71.

3. Click **OK** to display the new definition or **Cancel** to close the dialog box without displaying the definition.

   Note: Remember to save or transfer your changes before closing EASY CPU.

Editing Camera Definitions

Once a camera is defined, you can edit the definition by highlighting the information in the desired field and entering new information.

For example, to position Title1 on the monitor, click on the **Center Title1** field, and choose the desired title position from the dropdown menu that appears: **Left**, **Center**, **Right**, or **None** (no title will be displayed).

Adding and Deleting Calling Contacts to Cameras

The Calling Contacts tab allows you to specify the alarm contacts associated with the highlighted camera.

To view and edit this tab, double-click on the Calling Contacts field in the highlighted camera row.

Figure 90. Cameras Calling Contacts tab screen

The Calling Contacts tab contains the following fields:

- **Contact No. –** Number of the alarm contact associated with the camera
- **Preset or Pattern** – Pattern or preset number associated with the camera
- **Link –** Choose either **No**, **Yes**, **Wired**, **No Group Ack**, **Yes Group Ack**, or **Wired Group Ack**
- **Aux –** Choose either **Don't Care**, **Aux 1 On**, **Aux 2 On, Aux 3 On**, **Aux 4 On**, **Aux 1 Off**, **Aux 2 Off**, **Aux 3 Off**, or **Aux 4 Off**
- **Dwell –** Enter the dwell time in seconds
- **Alarm Message –** Enter the alarm message number to be associated with the camera.

  Note: Alarm messages are first created in the Alarms **–** Alarm Messages screen.
- **Email Message –** Enter the Email message number to be associated with the camera.

  Note: Email messages are first created in the Alarms – Email Messages screen.

To close the Calling Contacts tab, click the Close Grid button

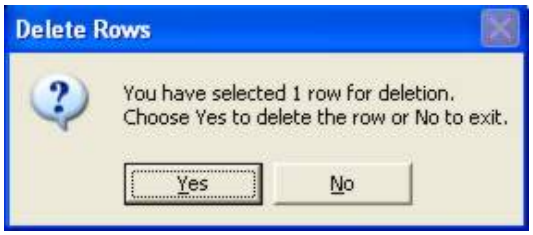
on the right side of the screen.

Deleting Calling Contacts

To delete calling contacts:

1. Click on a camera in the upper screen.
2. Click the header of the row in the lower screen that contains the calling contact to be deleted.
3. Press the keyboard **Delete** key of the PC running EASY CPU. The Delete Rows dialog box appears.

Figure 91. Delete Rows dialog



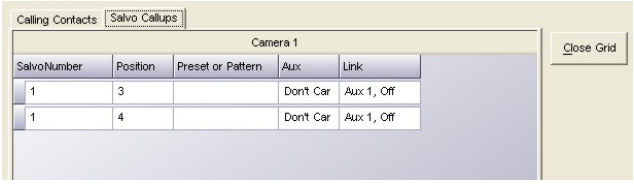
4. Click **Yes** to delete the calling contact or **No** to close the dialog box without deleting the calling contact.

Associating Salvo Callups to Cameras

The Salvo Callups tab allows you to specify the Salvos associated with the highlighted camera.

To view and edit Salvo callups from the Definitions – Cameras screen, double-click on the Salvo Callups field in the highlighted camera row.

Figure 92. Salvo callups screen



The Salvo Callups tab displays the following information:

- **SalvoNumber –** Displays the Salvos associated with selected cameras.
- **Position –** Number associated with a salvo, as defined in Column 1 (Position) of the Switching – Salvo – Cameras tab screen.
- **Preset or Pattern –** Displays the number assigned to the preset coordinates or pattern moves that the camera will execute when that camera is called by this salvo. This number is assigned in Column 3 (Preset or Pattern) of the Switching – Salvo– Cameras tab screen.
- **Aux –** Displays the On, Off, or Don't Care state of devices designated as Aux 1, Aux 2, or Aux 3 when that camera is called by this salvo. This parameter is assigned in Column 4 (Aux) of the Switching – Salvo – Cameras tab screen.
- **Link –** Displays the link state. Options are:
  - **No** – The salvo will not execute any parameters beyond those defined in that row.
  - **Yes** – The salvo will link to and execute the next line.
  - **Salvo** – The salvo will link to and execute the next salvo.

To close the Salvo Callups tab, click the Close Grid button

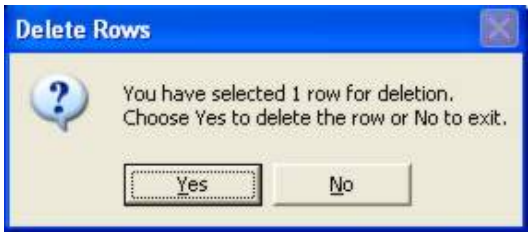
on the right side of the screen.

Deleting Salvo Callups

To delete salvo callups:

1. Click on a camera in the upper screen.
2. Click the header of the row in the lower screen that contains the salvo callup to be deleted.
3. Press the keyboard **Delete** key of the PC running EASY CPU. The Delete Rows dialog box appears.

Figure 93. Delete Rows dialog



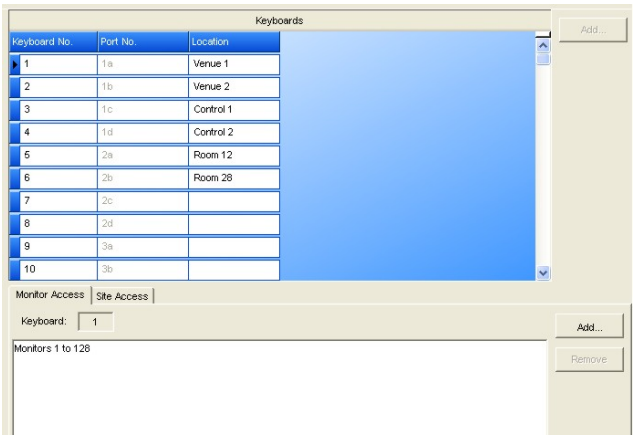
4. Click **Yes** to delete the salvo callup or **No** to close the dialog box without deleting the salvo callup.

Defining Keyboards

The Definitions – Keyboards screen allows you to identify keyboards and the ports that connect them.

Click on the Definitions – Keyboards link in the Explore menu to begin. The Keyboards screen appears.

Figure 94. Definitions – Keyboards screen



The Definitions – Keyboards screen is split into an upper and lower screen

- The **upper screen** shows existing keyboard definitions and allows you to create new definitions.
- The **lower screen** provides two tabs that allow you to set up monitor access and site access for each keyboard.

Adding Keyboard Definitions

You can create, edit, and delete keyboard definitions.

1. To add new keyboard definitions, click **Add** on the right side of the screen. The Add Keyboard dialog box appears (Figure 95 on page 46).

Figure 95. Add Keyboard dialog

2. To add keyboards, complete the following fields:
   - **System Port Number –** Enter the port number of the keyboard's connection to the MegaPower CPU. The MegaPower CPU can support up to 128 keyboards using port expansion modules. Port expansion modules convert a single port into four ports. When a port expansion module is connected to a port, port numbering adds an alpha character (a, b, c, d) to each port number; for example, port one becomes ports 1a, 1b, 1c, 1d; port two becomes ports 2a, 2b, 2c, 2d, and so on.
   - **Expansion Port** – Choose the port on the expansion port module (if the MegaPower CPU is so equipped) that the keyboard will connect to. The choices are **a**, **b**, **c**, or **d**.
   - **Name –** Enter a name for the keyboard using alpha or numeric characters.
3. Click **OK** to display the new definition or **Cancel** to close the dialog box without displaying the definition.

   Note: Remember to save or transfer your changes before closing EASY CPU.

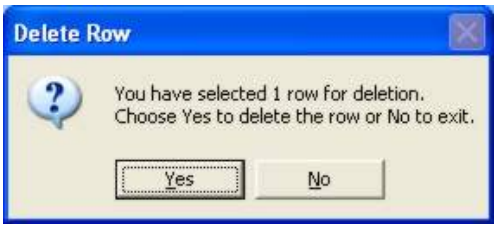
Editing and Deleting Keyboard Definitions

Once a keyboard is defined, you can edit the definition by highlighting the information in the desired field and typing in new information.

To delete a keyboard definition:

1. Click on the leftmost blue portion of the row in the upper screen containing the keyboard definition. The entire row turns blue.
2. Press **Delete** on the PC keyboard. The Delete Row dialog box appears.

Figure 96. Delete Row dialog



3. Click **Yes** to delete the keyboard definition or **No** to retain the keyboard definition.

Adding Monitor Access to Keyboards

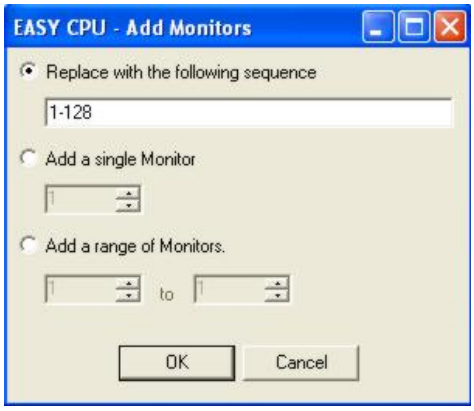
The Monitor Access tab on the Definitions – Keyboards screen allows you to enable selected keyboards to access monitors.

Figure 97. Definitions – keyboards monitor access screen

To begin associating monitors with keyboards from the Definitions – Keyboards screen:

1. Click on a keyboard.
2. Click the Monitor Access tab. The selected keyboard number appears just below the tab in the keyboard field.
3. Click **Add** on the right side of the screen. The Add (Replace) Monitors dialog box appears.

Figure 98. Add (Replace) Monitors dialog



The Add (Replace) Monitors dialog provides three options.

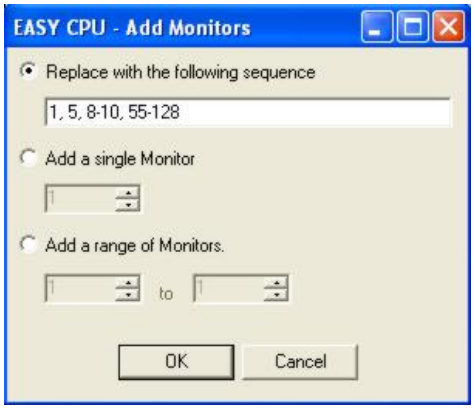
4. To select an option, click the button beside it and complete the required information. Options are:
   - **Replace with the following sequence** – enter a range of monitors, for example, 1-256.
   - **Add a single Monitor** – Click the up or down arrows to select a monitor.
   - **Add a range of Monitors** – Click the up or down arrows on the “from” and “to” fields to select a range of monitors.
5. Click **OK** to save your monitor choices or **Cancel** to close the dialog box without saving your choices.

Adding a Range of Monitors

To add monitors or a range of monitors:

1. Click the Monitor Access tab in the lower screen.
2. Click **Add** on the right side of the lower screen. The Add Monitors to monitor access dialog box appears.

Figure 99. Add Monitors to Monitor Access dialog



3. Enter the numbers of the monitors or range of monitors you want to associate with a specific keyboard.

   For example, Figure 100 displays a range of monitors for Keyboard 1. The range of monitors are 1, 5, 8 through 10, and 55 through 128. When entering the monitors, each monitor number or range of monitor numbers is separated by a comma. They appear as separate rows in the lower screen.

Figure 100. Adding a range of monitors

Adding Site Access to Keyboards

The Site Access tab on the Definitions – Keyboards screen allows you to enable selected keyboards to gain access to satellite sites.

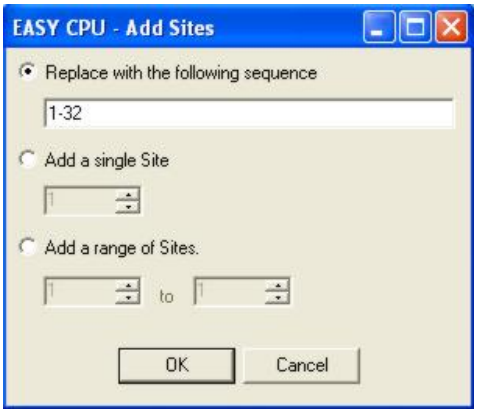
Figure 101. Site access screen

To begin enabling site access from the Definitions – Keyboards screen:

1. Click on a keyboard.

2. Click the Site Access tab. The selected keyboard number appears just below the tab in the keyboard field.
3. Click **Add** on the right side of the screen. The Add Sites dialog box appears.

Figure 102. Add Sites dialog



The Add Sites dialog provides three options. To select an option:

1. Click the button beside it and complete the required information. Options are:
   - **Replace with the following sequence** – Enter a range of satellite sites; for example: 1-30.
   - **Add a single Site** – Click the up or down arrows to select a satellite site.
   - **Add a range of Sites** – Click the up or down arrows on the "from" and "to" fields to select a range of satellite sites.
2. Click **OK** to save your site choices or **Cancel** to close the dialog box without saving your choices.

Removing Monitor or Site Access

To remove monitor or site access, do the following:

1. In the upper screen, click on the keyboard that contains the monitor to be deleted.
2. In the lower screen, click on the monitor or site access to be deleted, and then press **Remove** on the right side of the screen.

Configuring Keyboard/User Keyboards and Priorities

The Definitions – Keyboard/User Priorities screen allows the administrator to assign priority access levels to individual keyboards.

Priority levels determine whether the keyboard can perform special functions, such as camera lock, override, system reset, and others. You create priority levels within the Priority Settings tab on the Keyboard/Users Priorities screen.

Defining the Keyboard/User Keyboards Configuration

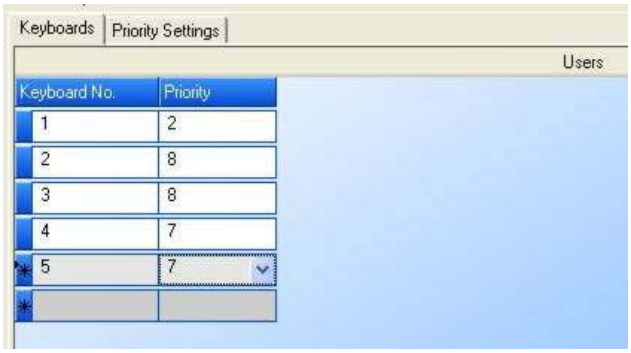
To define the Keyboard/User Priorities – Keyboards configuration, do the following:

1. Click on Keyboard/User Priorities link in the Explore menu to begin.

   Important: Depending of the setting of the User Enable Logon checkbox in the System – Options dialog box, one of two screens will appear.

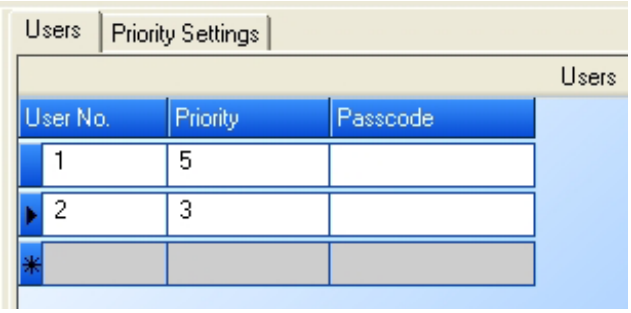
   User Enable Logon checkbox settings:
   - **Unchecked** – Figure 103 appears and permits assigning of keyboard priorities.
   - **Checked** – Figure 104 appears and permits assigning of user priorities and passcodes.

Figure 103. Definitions – keyboard/user priorities keyboard setup screen



2. In the Keyboards tab, complete the following fields:
   - **Keyboard No.** – Identifies the keyboard by its physical connection to the CPU.
   - **Priority** – Identifies the priority level (1-8) assigned to the selected keyboard.

Figure 104. Definitions – keyboard/user priorities users setup screen



3. In the Users tab, complete the following fields:
   - **User No.** – Numeric reference assigned by the administrator that identifies individual users.
   - **Priority** – Identifies the priority level (1-8) assigned to the user.
   - **Passcode** – Displays the passcode for access to system resources, such as cameras and monitors.

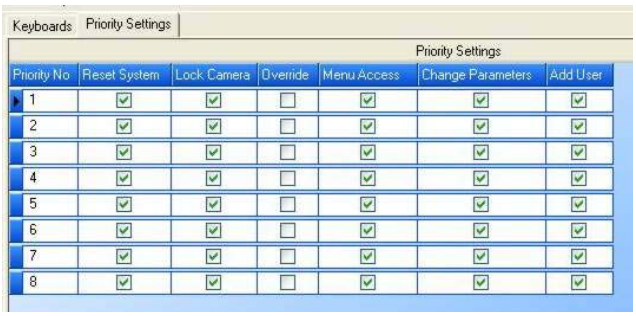
Configuring the Keyboard/User Priority Settings

The Keyboard/User Priorities setup allows you to create up to eight priority levels that can be assigned to keyboards and users. Each priority level grants a different level of permission for control of cameras or the system.

To configure the Keyboard/User priority settings, do the following within the Priority Settings tab:

1. Click on Keyboard/User Priorities link in the Explore menu to begin. The following screen appears.

Figure 105. Definitions – keyboard/user priorities settings screen



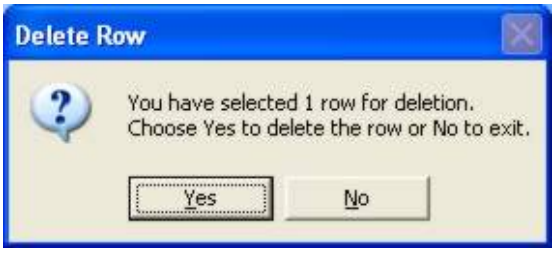
2. In the Priorities Settings tab, complete the following fields:
   - **Priority No.** – Identifies a level (1-8) to this priority (1 = lowest priority, 8 = highest priority).
   - **Reset System** – If enabled, the selected priority level can clear all programmed information from the CPU and return to factory defaults.
   - **Lock Camera** – If enabled, the selected priority level can lock the control of a camera (equal or lower priority levels will have view-only capability).
   - **Override** – If enabled, the selected priority level can override the keyboard/camera view and control partitioning restrictions.
   - **Menu Access** – If enabled, the selected priority level can access menu programming.
   - **Change Parameters** – If enabled, the selected priority level can edit system parameters through menu programming (must have menu access).
   - **Add User** – If enabled, the selected priority level can add new users.

Deleting Keyboard/User Priorities Settings

To delete a keyboard, user, or priority settings:

1. Click on the appropriate tab.
2. Click on the leftmost blue portion of the row containing the desired definition. The entire row turns blue.
3. Press **Delete** on the PC keyboard. The Delete Row dialog box appears.

Figure 106. Delete Row dialog



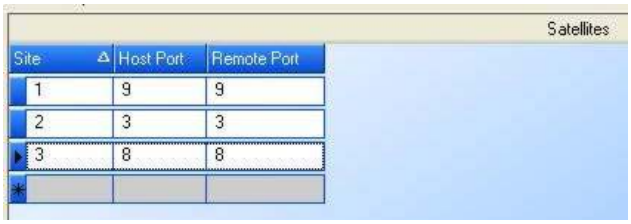
4. Click **Yes** to delete the definition or **No** to retain the definition.

Defining Satellite Sites

The Satellite Sites setup allows you to identify satellite sites and their port connections on the MegaPower CPU.

1. Click on the Definitions – Satellite Sites link to begin. The following screen appears.

Figure 107. Satellite sites screen



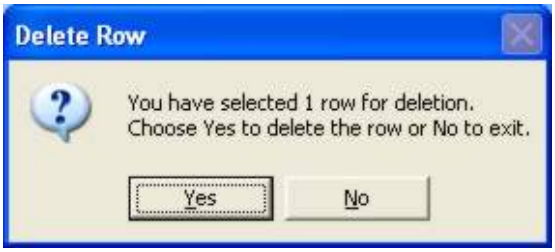
2. To define satellite sites, complete the following fields:
   - **Site** – Enter the unique site number (1-30) of the satellite system. The unique site number was created at the satellite site during setup.
   - **Host Port** – Enter the port to which the satellite is connected on the local MegaPower CPU. The same port must be selected on the System – Port Configuration screen.
   - **Remote Port** – Enter the communication port on the satellite system.

Deleting Satellite Sites

To delete satellite sites:

1. Click on the leftmost blue portion of the row containing the desired satellite site: The entire row turns blue.
2. Press **Delete** on the PC keyboard. The Delete Row dialog box appears.

Figure 108. Delete Row dialog



3. Click **Yes** to delete the satellite site or **No** to retain the satellite site.

Controlling Access with Partitions

Partitions control user access to cameras, monitors, keyboards, and satellite sites. You can partition cameras to monitors, keyboards to cameras, keyboards to monitors, keyboards to satellite sites, and monitors to cameras (Figure 109). The default setting is “no partitions.”

Partitioning provides the following capabilities:

- **Camera to Monitor Access** – Limits displaying selected camera video on specified monitors.
- **Keyboard to Camera Control Access** – Limits selected keyboards from controlling functions on selected cameras; for example, pan/tilt/zoom, and auxiliaries.
- **Keyboard to Camera View Access** – Limits selected keyboards from calling up selected cameras for viewing and from directly accessing video trunk inputs in a satellite network.
- **Keyboard to Monitor Access** – Limits selected keyboards from accessing selected monitors and from accessing video trunk outputs in a satellite network.
- **Keyboard to Satellite Site Access** – Limits selected local keyboards from accessing all cameras at selected satellite sites.
- **Monitor to Camera Access**– Limits selected monitors displaying video from specified camera inputs.

Figure 109. Partitions link

Associating Cameras to Monitors

The Partitions – Cameras to Monitors screen determines which cameras can be called to which monitors.

The screen is split into two sections:

- The **upper screen** displays existing camera definitions and has an Add button in the upper right corner to add new camera definitions. It also has a reset button that allows you to reset camera pseudo numbers to the system default. The range for pseudo numbers is 1-9999.

  Further, the upper screen allows you to change (add or delete) monitor access in the Monitor Access column.

- The **lower screen** has two tabs: Calling Contacts and Salvo Callups, which allow you to set alarm contacts and view salvo callups.

  – Calling contacts must first be defined in the Alarms – Contact Definitions screen. Calling contact changes can be made directly in the Calling Contacts tab's fields.

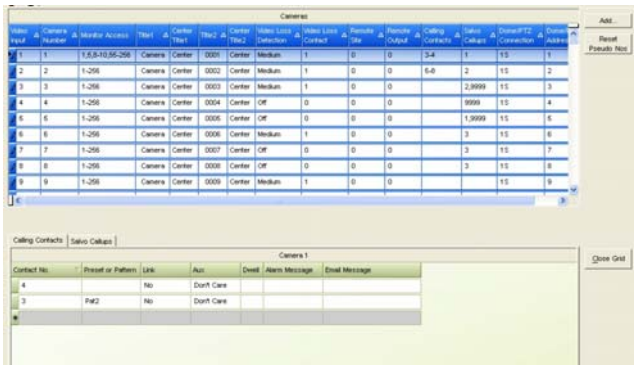
  – Salvos must first be defined in the Switching – Salvos screen before they can be viewed in this screen. No changes to Salvos can be made within this tab and is for information only.

Note: Changes made in this screen are also reflected in the Partitions – Monitors to Cameras screen (Figure 131 on page 59). Also, when pseudo numbers are changed, the changes are reflected wherever the pseudo numbers are referenced, such as alarm contact, salvo, and tour definitions.

Adding Camera Definitions

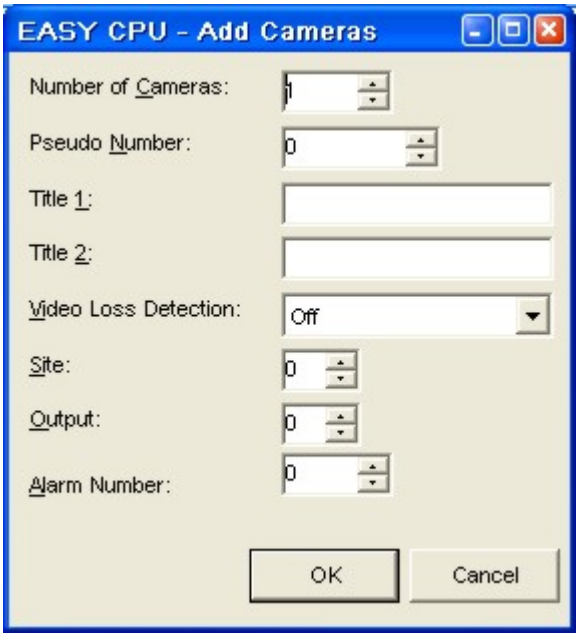
1. Click on the Partitions – Cameras to Monitors link in the Explore menu to begin. The following screen appears.

Figure 110. Partitions – cameras to monitors screen



2. Click **Add** on the right side of the upper screen. The Add Cameras dialog box appears.

Figure 111. Add Cameras dialog



3. To partition cameras to monitors, complete the following fields:

   - **Number of Cameras** – Allows you to enter the number of cameras you want to define. The system will number these cameras consecutively starting with the next highest available number. Camera numbers identify the video input connection number on the switcher.

     Note: If multiple cameras are defined at the same time, they share the same video loss detection, site, output, pan/tilt, alarm number and location. You can edit each camera's definition after they have been created.

   - **Pseudo Number.** – Unique identifiers you can give cameras to help identify their location or purpose. For example, you could number the cameras on the first floor of a building starting with 1000, such as: 1001, 1002, 1003, etc. You could use 2000 for second floor cameras, 3000 for third floor cameras and so on.

     The pseudo number is assigned starting with the first camera you specify and is incremented by 1 for each additional camera specified.

     Note: By default, pseudo numbers in this dialog box match the physical camera numbers (also known as Video Input numbers). In all other screens and dialogs, references to camera numbers are actually references to the defined pseudo numbers.

- **Title 1** – Allows you to create a two-line title for each camera that will display on the monitor when the camera is called. Title 1 is the upper line of the title and can be up to eight characters or digits in length with the pseudo number appended to the title. Titles over eight characters are truncated.

  Note: The **CenterTitle1** and **Center Title2** columns in the upper screen allow you to position the text shown in the **Title1** and **Title2** columns on the monitor.

  For example, to position Title1 on the monitor, click on the **Center Title1** field of the desired camera, and choose the title position from the dropdown menu that appears: **Left**, **Center**, **Right**, or **None** (no title will be displayed).

- **Title 2** – Allows you to create the lower line of a two-line camera title. Title 2 can be up to eight characters or digits in length.

- **Video Loss Detection** – Provides video loss detection alarming. You can set video loss detection for the following conditions:

  - **Off –** Video loss detection not enabled
  - **Sync** – To detect the presence of the vertical synchronization pulse in the video signal
  - **Low** – To detect low picture content
  - **Medium** – To detect medium picture content
  - **High** – To detect high picture content

- **Site** – Identifies the remote site that provides the video trunk inputs to the selected local camera.

- **Output** – Identifies the monitor output from the remote site that is connected to the selected local camera input.

- **Alarm Number** – Specifies an alarm contact number to activate when video loss is detected on this video input. See alarm contact definitions and **APPENDIX F: Configuring Video Loss Detection** on page 71.

4. Click **OK** to display the new definition or **Cancel** to close the dialog box without displaying the definition.

Note: Remember to save or transfer your changes before closing EASY CPU.

Editing Camera Definitions

Once a camera is defined, you can edit the definition by highlighting the information in the desired field and entering new information.

Adding a Range of Monitors

1. To add monitors or a range of monitors, double-click on a field in the Monitor Access column of the Partitions – Cameras to Monitors screen.
2. Enter the numbers of the monitors or range of monitors that you want to associate with the camera of the currently highlighted row.

   For example, Figure 112 displays a range of monitors for five different cameras. For Camera 1, the mapped monitors are 1, 5, 8 through10, and 55 through 128. Each monitor number or range of monitor numbers is separated by a comma.

Figure 112. Adding a range of monitors

Video Input	Camera Number	Monitor Access	Title1	Center Title1
1	1	1,5,8-10,55-256	Camera	Center
2	2	1-256	Camera	Center
3	3	1-256	Camera	Center
4	4	1-256	Camera	Center
5	5	1-256	Camera	Center

Changing Calling Contacts

The Calling Contacts tab section allows you to change the alarm contacts associated with the highlighted camera.

Note: Calling contacts must first be defined in the Alarms – Contact Definitions screen.

The Calling Contacts tab contains the following fields:

Figure 113. Cameras Calling Contacts tab screen

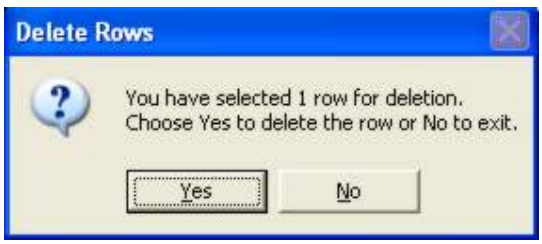
- **Contact No. –** Number of the alarm contact associated with the camera
- **Preset or Pattern** – Preset or Pattern number associated with the camera
- **Link –** Choose either No, Yes, Wired, No Group Ack, Yes Group Ack, or Wired Group Ack
- **Aux –** Choose either Don't Care, Aux 1 On, Aux 1 Off, Aux 2 On, Aux 2 Off, Aux 3 On, Aux 3 Off, or Aux 4 On
- **Dwell –** Enter the dwell time in seconds
- **Alarm Message –** Enter the alarm message number to be associated with the camera. **Note**: Alarm messages are first created in the Alarms **–** Alarm Messages screen.
- **Email Message –** Enter the Email message number to be associated with the camera. **Note**: Email messages are first created in the Alarms – Email Messages screen.

Removing Calling Contacts

To remove calling contacts from a camera:

1. Click on a camera (any cell in the keyboard row) in the upper screen.
2. Click on the calling contact row to be removed in the Calling Contacts tab in the lower screen.
3. Press the keyboard **Delete** key of the PC running EASY CPU. The Delete Rows dialog box appears.

Figure 114. Delete Rows dialog



4. Click **Yes** to delete the calling contact definition or **No** to retain the definition.

Associating Keyboards to Cameras

The Partitions – Keyboards to Cameras screen determines the level of control that keyboard operators can have over cameras.

Click on the Partitions – Keyboards to Cameras link in the Explore menu to begin. The following screen appears (Figure 115 on page 53).

Figure 115. Partitions – keyboards to cameras screen

The Partitions – Keyboards to Cameras screen is split into two sections:

- The **upper screen** shows existing keyboard definitions and allows you to create new definitions. Ranges for camera view access and camera control access are set up in this screen.

  The cameras associated with the keyboard are listed in the Camera View Access and the Camera Control Access columns.

  The Camera View Access column allows you to enable selected keyboards to view, but not control, cameras, while the Camera Control Access column allows you to enable selected keyboards to control cameras.

- The **lower screen** provides two tabs that allow you to set up monitor and site access for each keyboard.

  You can create and delete monitor and site access definitions.

Adding Keyboard Definitions

To add new keyboard definitions:

1. Click **Add** on the right side of the Partitions – Keyboards to Cameras upper screen. The Add Keyboard dialog box appears.

Figure 116. Add Keyboard dialog

2. To add keyboards, complete the following fields:
   - **System Port Number –** Enter the port number of the keyboard's connection to the MegaPower CPU. The MegaPower CPU can support up to 128 keyboards using port expansion modules. Port expansion modules convert a single port into four ports. When a port expansion module is connected to a port, port numbering adds an alpha character (a, b, c, d) to each port number; for example, port one becomes ports 1a, 1b, 1c, 1d; port two becomes ports 2a, 2b, 2c, 2d, and so on.
   - **Expansion Port** – Choose the port on the port expansion module (if the MegaPower CPU is so equipped) that the keyboard will connect to. The choices are **a**, **b**, **c**, or **d**.
   - **Name –** Enter a name for the keyboard using alpha or numeric characters.
3. Click **OK** to display the new keyboard definition or **Cancel** to close the dialog box without displaying the definition.

   Note: Remember to save or transfer your changes before closing EASY CPU.

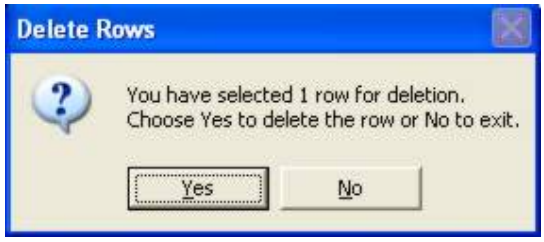
Editing Keyboard Definitions

Once a keyboard is defined, edit the definition by highlighting the desired field and typing in the information.

Deleting Keyboard Definitions

1. Click the header of the row in the upper screen that contains the keyboard definition to be deleted.
2. Press the keyboard **Delete** key of the PC running EASY CPU. The Delete Rows dialog box appears.

Figure 117. Delete Rows dialog



3. Click **Yes** to delete the keyboard definition or **No** to retain the definition.

Adding Cameras to Keyboards

To associate cameras with keyboards:

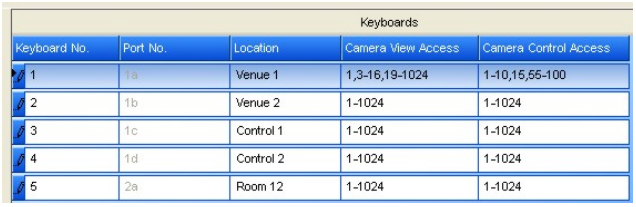
1. Click on a keyboard (any cell in the desired keyboard row) in the upper screen.
2. Double-click in either the Camera View Access or Camera Control Access fields, and enter the desired camera or range of cameras. See **Adding a Range of Cameras** below for detailed information.
3. Click in another field or press the **Tab** key on the keyboard to set the new camera definition.

Adding a Range of Cameras

Enter the pseudo numbers of the cameras or range of cameras you want to associate with a specific keyboard. The specified range shows all the enabled cameras by their pseudo numbers.

For example, Figure 118 displays a range of cameras for five different keyboards. For Keyboard 1, the pseudo numbers of the mapped Camera View Access cameras are 1, 3 through 16, and 19 through 1024. Each camera number or range of camera numbers is separated by a comma.

Figure 118. Adding a range of cameras



Removing Monitors or Satellite Sites Access from Keyboards

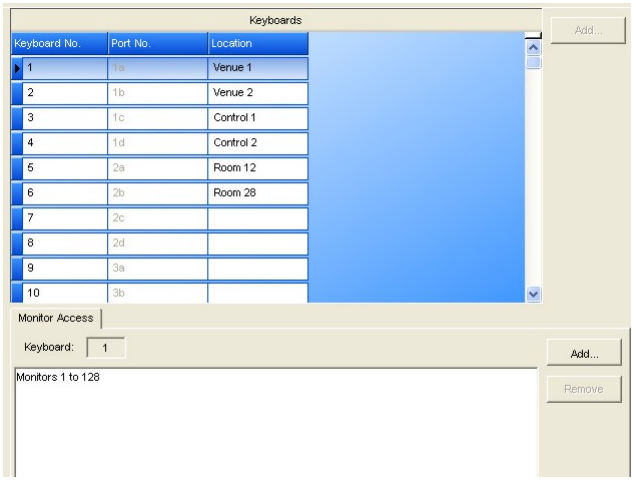
1. Click on a keyboard (any cell in the keyboard row) in the upper screen.
2. Do one of the following:
   - Click on the monitor access row to be removed in the Monitor Access tab in the lower screen.
   - Click on the site access row to be removed in the Site Access tab in the lower screen.
3. Click the **Remove** button on the right side of the lower screen. This removes the specified monitors or satellite sites associated with that keyboard.

Associating Keyboards to Monitors

The Partitions – Keyboards to Monitors screen allows keyboard operators to access selected monitors.

Click on the Partitions – Keyboards to Monitors link in the Explore menu to begin. The following screen appears.

Figure 119. Partitions – keyboards to monitors screen



The Partitions – Keyboards to Monitors screen is split into two sections:

- The **upper screen** shows existing keyboard definitions and allows you to create new definitions.
- The **lower screen** allows you to set up monitor access for each keyboard.

You can create, edit, and delete keyboard definitions.

Adding Keyboard Definitions

To add new keyboard definitions:

1. Click **Add** on the right side of the Partitions – Keyboards to Monitors upper screen. The Add Keyboard dialog box appears.

Figure 120. Add Keyboard dialog

2. To add keyboards, complete the following fields:
   - **System Port Number** – Enter the port number of the keyboard's connection to the MegaPower CPU. The MegaPower CPU can support up to 128 keyboards using port expansion modules. Port expansion modules convert a single port into four ports. When a port expansion module is connected to a port, port numbering adds an alpha character (a, b, c, d) to each port number; for example, port one becomes ports 1a, 1b, 1c, 1d; port two becomes ports 2a, 2b, 2c, 2d, and so on.
   - **Expansion Port** – Choose the port on the port expansion module (if the MegaPower CPU is so equipped) that the keyboard will connect to. The choices are **a**, **b**, **c**, or **d**.
   - **Name** – Enter a name for the keyboard using alpha or numeric characters.
3. Click **OK** to display the new keyboard definition or **Cancel** to close the dialog box without displaying the definition.

   Note: Remember to save or transfer your changes before closing EASY CPU.

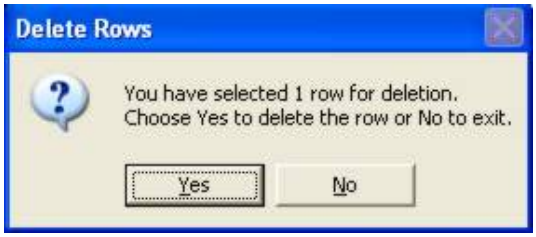
Editing Keyboard Definitions

Once a keyboard is defined, you can edit the definition by highlighting the desired field and typing in new information.

Deleting Keyboard Definitions

1. Click the header of the row in the upper screen that contains the keyboard definition to be deleted.
2. Press the keyboard **Delete** key of the PC running EASY CPU. The Delete Rows dialog box appears.

Figure 121. Delete Rows dialog



3. Click **Yes** to delete the keyboard definition or **No** to retain the definition and exit.

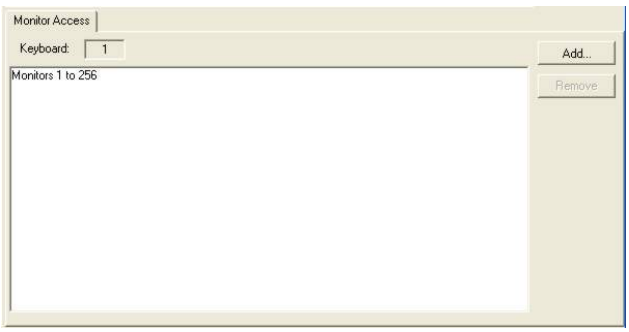
Adding Monitor Access to Keyboards

The Monitor Access tab on the Partitions – Keyboards to Monitors screen allows you to enable selected keyboards to view, but not control, monitors.

To begin associating keyboards with monitors:

Click on a keyboard (any cell in the keyboard row) in the upper screen. This associates the selected keyboard to the monitors listed in the Monitor Access screen (lower screen). The keyboard number appears in the grayed-out Keyboard box.

Figure 122. Monitor access screen

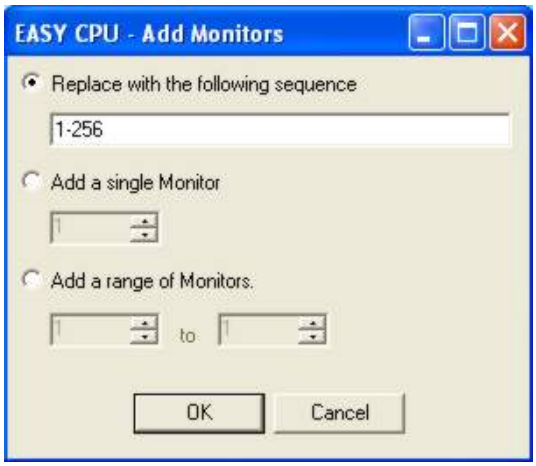


You can add monitors to keyboards, as well as remove them from keyboards.

Adding Monitors to Keyboards

1. Click **Add** on the right side of the Monitor Access screen. The Add (Replace) Monitors dialog box appears.

Figure 123. Add (Replace) Monitors dialog



The Add (Replace) Monitors dialog provides three options. To select an option:

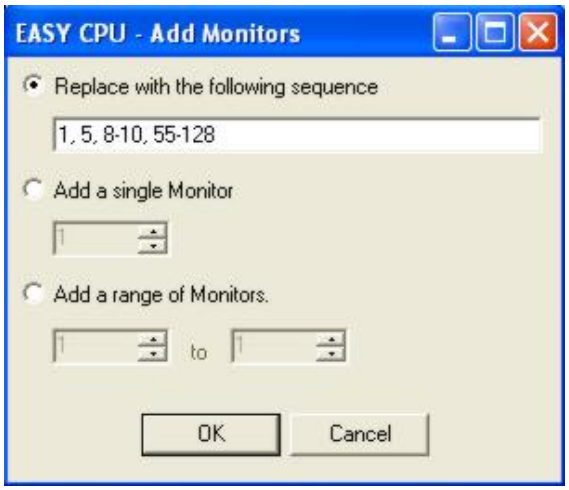
2. Click the button beside the option and complete the required information. The options are:
   - **Replace with the following sequence** – Enter a range of monitors; for example: 1-256.
   - **Add a single Monitor** – Click the up or down arrows to select a monitor.
   - **Add a range of Monitors** – Click the up or down arrows on the “from” and “to” fields to select a range of monitors.
3. Click **OK** to save your monitor choices or **Cancel** to close the dialog box without saving your choices.
4. Repeat this procedure for all keyboards.

Adding a Range of Monitors

To add monitors or a range of monitors:

1. Click the Monitor Access tab in the lower screen.
2. Click **Add** on the right side of the lower screen. The Add Monitors to monitor access dialog box appears.

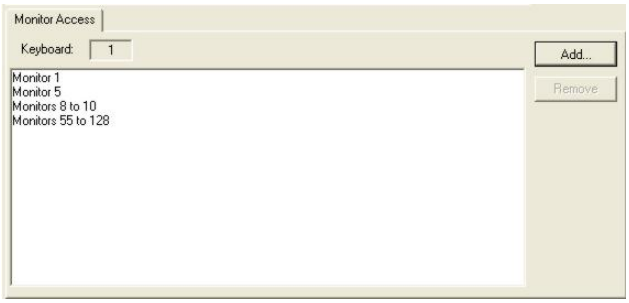
Figure 124. Add Monitors to Monitor Access dialog



3. Enter the numbers of the monitors or range of monitors you want to associate with a specific keyboard.

   For example, Figure 125 displays a range of monitors for Keyboard 1. The range of monitors are 1, 5, 8 through10, and 55 through 128. When entering the monitors, each monitor number or range of monitor numbers is separated by a comma. They appear as separate rows in the lower screen.

Figure 125. Adding a range of monitors



Removing Monitors from Keyboards

To remove monitors from a keyboard:

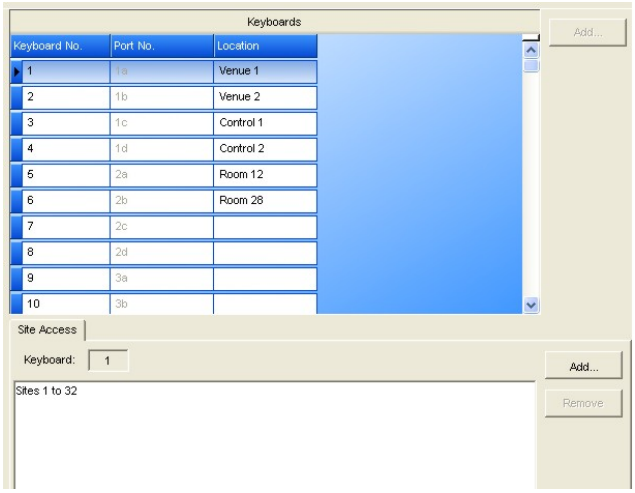
1. Click on a keyboard (any cell in the keyboard row) in the upper screen.
2. Click on the monitors to be deleted in the monitor access screen (lower screen).
3. Click the **Remove** button on the right side of the Monitor Access screen. This removes all the monitors associated with that keyboard.

Associating Keyboards to Satellites

The Partitions – Keyboards to Satellites screen allows you restrict keyboard operators from accessing satellite sites.

Click on the Partitions – Keyboards to Satellites link in the Explore menu to begin. The following screen appears.

Figure 126. Partitions – keyboards to satellites screen



The Partitions – Keyboards to Satellites screen is split into two sections:

- The **upper screen** shows existing keyboard definitions and allows you to create new definitions.
- The **lower screen** titled Site Access allows you to set up satellite site access for each keyboard.

You can create, edit, and delete keyboard definitions.

Adding Keyboard Definitions

1. To add new keyboard definitions, Click **Add** on the right side of the Partitions – Keyboards to Satellites upper screen. The Add Keyboard dialog box appears (Figure 127 on page 58).

Figure 127. Add Keyboard dialog

2. To add keyboards, complete the following fields:

   - **System Port Number** – Enter the port number of the keyboard's connection to the MegaPower CPU. The MegaPower CPU can support up to 128 keyboards using port expansion modules. Port expansion modules convert a single port into four ports. When a port expansion module is connected to a port, port numbering adds an alpha character (a, b, c, d) to each port number; for example, port one becomes ports 1a, 1b, 1c, 1d; port two becomes ports 2a, 2b, 2c, 2d, and so on.
   - **Expansion Port** – Choose the port on the port expansion module (if the MegaPower CPU is so equipped) that the keyboard will connect to. The choices are **a**, **b**, **c**, or **d**.
   - **Name** – Enter a name for the keyboard using alpha or numeric characters.

3. Click **OK** to display the new keyboard definition or **Cancel** to close the dialog box without displaying the definition.

   Note: Remember to save or transfer your changes before closing EASY CPU.

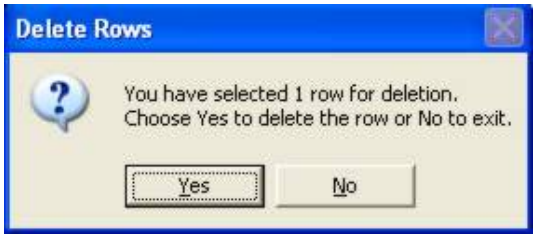
Editing Keyboard Definitions

Once a keyboard is defined, you can edit the definition by highlighting the information in the field and typing in new information.

Deleting Keyboard Definitions

1. Click the header of the row in the upper screen that contains the keyboard definition to be deleted.
2. Press the keyboard **Delete** key of the PC running EASY CPU. The Delete Rows screen appears.

Figure 128. Delete Rows dialog



3. Press **Yes** to delete the keyboard definition or **No** to retain the definition and exit.

You can add monitors to keyboards, as well as remove them from keyboards.

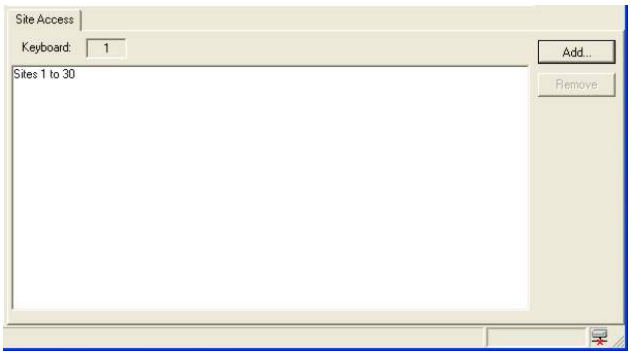
Adding Site Access to Keyboards

The Site Access tab on the Partitions – Keyboards to Satellites screen allows you to enable selected keyboards to view, but not control, satellite sites.

To begin associating keyboards with satellite sites:

Click on a keyboard (any cell in the keyboard row) in the upper screen. This associates the keyboard to the satellite sites listed in the Site Access screen (lower screen). The keyboard number appears in the grayed-out Keyboard box.

Figure 129. Site Access screen

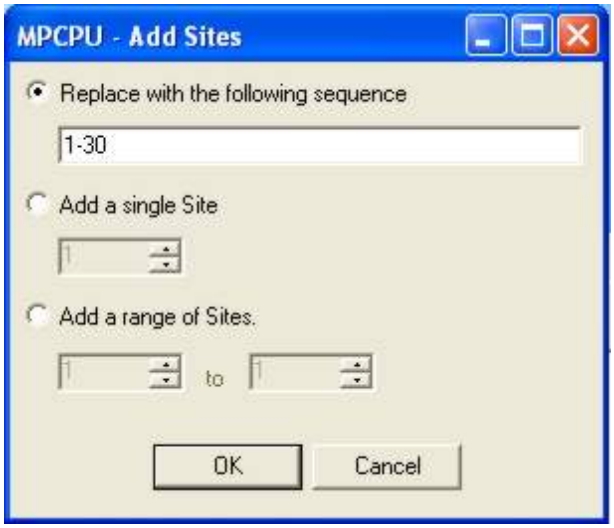


You can add satellite sites to keyboards, as well as remove them from keyboards.

Adding Satellite Sites to Keyboards

1. Click **Add** on the right side of the Site Access screen. The Add Sites dialog box appears.

Figure 130. Add Sites dialog



The Add Sites dialog box provides three options. To select an option:

2. Click the button beside it and complete the required information. The options are:
   - **Replace with the following sequence** – Enter a range of sites; for example: 1-30.
   - **Add a single Site** – Click the up or down arrows to select a site.
   - **Add a range of Sites** – Click the up or down arrows on the “from” and “to” fields to select a range of sites.
3. Click **OK** to save your site choices or **Cancel** to close the dialog box without saving your choices.

Removing Satellite Sites from Keyboards

1. Click on a keyboard (any cell in the keyboard row) in the upper screen.
2. Click on the satellite sites listed on the Site Access screen (lower screen).
3. Click the **Remove** button on the right side of the site access screen. This removes the satellite sites associated with that keyboard.

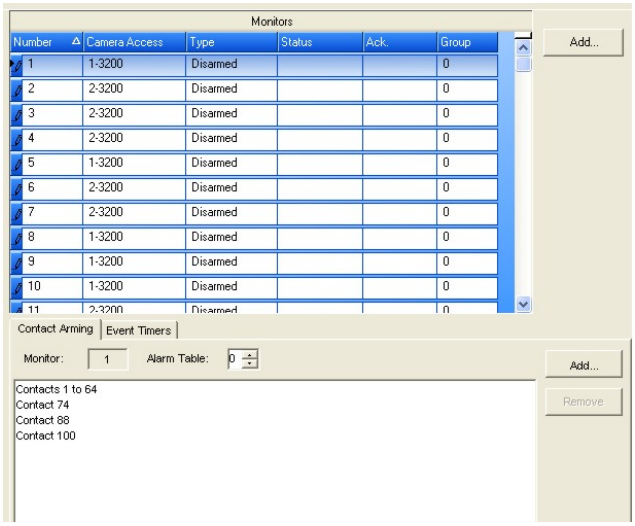
Associating Monitors to Cameras

The Partitions – Monitors to Cameras screen determines which cameras can be called to which monitors. This method of association simplifies partitioning a range of cameras to specific monitors.

If you want to partition multiple cameras so they cannot be accessed by specific monitors, you must configure in the Partitions – Cameras to Monitors screen, the access on a per camera basis rather than on a per monitor basis (as in the Partitions – Monitors to Cameras screen).

Click on the Partitions – Monitors to Cameras link in the Explore menu to begin. The following screen appears (Figure 131 on page 59).

Figure 131. Partitions – monitors to cameras screen



The Partitions – Monitors to Cameras screen is split into two sections:

- The **upper screen** shows existing monitor definitions and allows you to create new definitions.
- The **lower screen** allows you to set up contact arming and view event timers for each monitor.

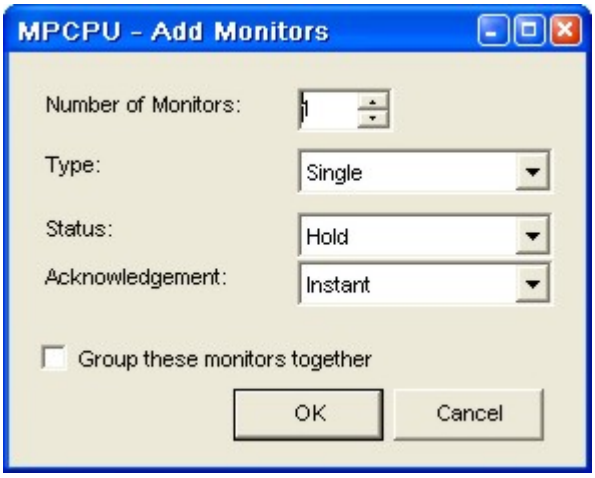
Note: Changes made in this screen are also reflected in the Partitions – Cameras to Monitors screen (Figure 110 on page 51).

You can create and edit monitor definitions.

Adding Monitor Definitions

1. Click **Add** on the right side of the upper screen. The Add Monitors dialog box appears.

Figure 132. Add Monitors dialog



2. To partition monitors to cameras, complete the following fields:

   - **Number of Monitors** – Specify the monitor by number.
   - **Type** – Defining the type of monitor determines how the monitor treats incoming alarms. From a dropdown list, you can define each monitor as:
     - **Single** – Incoming alarms are displayed on a single monitor. Multiple alarms received at a single monitor will be either sequenced or held based on the monitor's alarm queuing method. For an explanation of alarm queuing methods, refer to **APPENDIX H: Monitor Arming Methods** on page 74.
     - **Block** – Incoming alarms are displayed on a block (group) of monitors with which they are associated. The first incoming alarm is displayed on the first (lowest numbered) monitor of the block. The second alarm is displayed on the next lowest numbered monitor of the block, and so on. When all monitors in a given block are displaying alarm video signals, all subsequent alarms are either held in queue or sequenced until the displayed alarms are cleared depending on the monitor alarm queuing method.
     - **Dual Hold** – An incoming alarm is displayed and held on the monitor until cleared. All subsequent alarms are queued in order until the current held alarm is cleared.
     - **Dual Sequence** – Incoming alarms are displayed in sequence on an armed monitor and will cycle continuously until cleared. Each alarm will be displayed for a pre-programmed dwell time before it is succeeded by the next received alarm.
     - **Disarmed** – The monitor does not receive alarms.
   - **Status** – From a dropdown list, you can define the selected monitor for either hold or sequence status.
     - **Hold** – Alarm remains on the monitor until cleared
     - **Sequence** – Alarms are sequenced on the monitor until cleared
   - **Acknowledgement** – This field allows you to determine how alarms will be cleared for the selected monitor. Options are:
     - **Instant** – An alarm resets immediately at its source when the triggering device returns to normal. For example, a door opens and activates the alarm: Closing the door clears the alarm instantly. An operator can manually override this alarm.
     - **Auto** – An alarm resets at its source after a 20-second delay. For example, a door opens and activates an alarm. The door is closed immediately, but the alarm will not clear unless the door remains closed for a 20-second interval. An operator can manually override this alarm.
     - **Manual Ack.** – An operator must clear the alarm using a keyboard command.
     - **Instant No Ack.** – Alarm resets instantly after alarm condition goes away. No acknowledgement from the operator is permitted.
     - **Auto No Ack.** – Alarm resets 20 seconds after alarm condition goes away. No acknowledgement from the operator is permitted.
   - **Group these monitors together** – You can define several monitors as a group (or block) for the purpose of displaying multiple cameras or Salvo alarms. To create a group:

     a. Select a range of monitors in the Number of Monitors field.

     b. Select **Block** in the Type field.

c. Click the box next to “Group these monitors together.”

d. Click **OK** to display the new monitor arming configuration or **Cancel** to close the dialog box without displaying the monitor arming configuration. Remember to save and transfer your changes before closing EASY CPU.

After clicking **OK,** the system will automatically assign the same group number to each monitor in the group. The group number will be the same as the first monitor number in the group.

For example, suppose you create a group comprised of five monitors starting at monitor number 12. The system will assign monitor numbers 12, 13, 14, 15, and 16 to the five monitors, but they will share the number 12 as their group number.

Even though monitors are assigned in a contiguous block, the armed monitors can be selectively disarmed by changing the Type field to “Disarmed” for each one that you do not want to be armed. However, you cannot interleave monitor blocks.

Adding a Range of Cameras

1. To add cameras or a range of cameras, double-click on a field in the Camera Range column of the Partitions – Monitors to Cameras screen.
2. Enter the pseudo numbers of the cameras or range of cameras that you want to associate with the monitor of the currently highlighted row. The specified range shows all the enabled cameras by their pseudo numbers.

   For example, Figure 133 displays a range of cameras for four different monitors. For Monitor 1, the mapped cameras are 1, 3 through 16, and 19 through 1024. Each camera number or range of camera numbers is separated by a comma.

Figure 133. Adding a range of cameras

Monitors

Number	Camera Access	Type	Status
1	1,3-16,19-1024	Disarmed	
2	2-16,19-1024	Disarmed	
3	2-3200	Disarmed	
4	2-3200	Disarmed	
5	1-3200	Disarmed	
6	2-3200	Disarmed	

Contact Arming

The Contact Arming tab screen enables you to assign a group of contacts in an alarm table to a monitor.

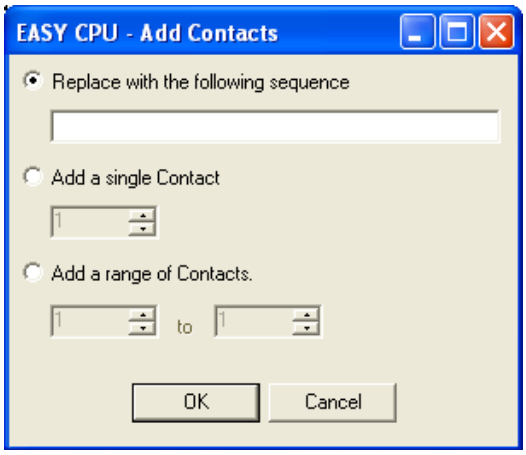
Figure 134. Contact Arming tab screen

Adding Contacts

To begin assigning a group of contacts to a monitor from the Partitions – Monitors to Cameras screen:

1. Click on a monitor in the upper screen.
2. Click the Contact Arming tab in the lower screen. The selected monitor number(s) appear just below the tab in the Monitor field.
3. Click **Add** on the right side of the lower screen. The Add Contacts dialog box appears.

Figure 135. Add Contacts dialog



The Add Contacts dialog provides three options.

1. To select an option, click the button beside the option, and complete the required information. Options are:

   - **Replace with the following sequence** – enter a range of monitors, for example, 1-256.
   - **Add a single Contact** – Click the up or down arrows to select a contact.
   - **Add a range of Contacts** – Click the up or down arrows on the “from” and “to” fields to select a range of contacts.

2. Click **OK** to save your contact choices or **Cancel** to close the dialog box without saving your choices.

Deleting Contacts

To delete contacts assigned to a monitor defined in the Contact Arming tab, do the following:

1. In the upper screen, click on the monitor that contains the contact(s) to be deleted.
2. Click on the contact(s) in the lower screen to be deleted, and then click **Remove** on the right side of the screen.

Event Timers

The Event Timers tab allows you to view or delete event timer information that is associated with selected monitors.

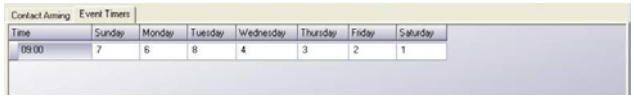
Note: Event timers displayed in this screen are for information only, and they cannot be added or edited here, but they can be deleted. You must define event timers in the Switching – Event Timer screen as described on page 35.

Viewing Event Timers

To view event timer information from the Partitions – Monitors to Cameras screen:

1. Click on a monitor in the upper screen.
2. Click the Event Timers tab in the lower screen.

Figure 136. Event timers screen

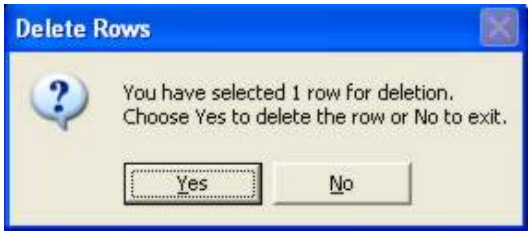


Deleting Event Timers

To delete an event timer definition:

1. Click on a monitor in the upper screen.
2. Click the header of the row in the lower screen that contains the event timer definition to be deleted.
3. Press the keyboard **Delete** key of the PC running EASY CPU. The Delete Rows dialog box appears.

Figure 137. Delete Rows dialog



4. Click **Yes** to delete the event timer definition or **No** to close the dialog box without deleting the definition.

Performing a Ping Test

A ping test checks and verifies the state of communications between camera domes and the MegaPower CPU. The ping test also reports configuration information from the camera dome for display on the EASY CPU camera status screen. Refer to **Camera Status** on page 25 for detailed information on the camera status screen.

To initiate a ping test, enter the special function key **29-F1** on your keyboard. Refer to **APPENDIX E: Auxiliary Key Code Functions** on page 69 for a listing of keyboard special function keys.

- At the start of a ping test, the mnemonic and flash version number data are displayed on a selected monitor for a few seconds before the ping test data is collected and displayed for the remainder of the test.
- As the test progresses, the monitor displays the number of transmission attempts and the number of failure counts (up to 6 digits) of the attempts that failed to receive a reply from the dome.

A ping test allows concurrent testing of up to ten domes to different monitors.

Declarations

Regulatory Compliance

EMC.....47 CFR, Part 15
EN 50130-4
EN 55022
EN 61000-3-2
EN 61000-3-3

Safety ..... UL/IEC/EN/CSA C22.2.60950-1

Environmental ..... RoHS 2002/95/EC
WEEE 2002/96/EC
IP code X0

Regulatory Type:

ADMPCPU-MPU
ADMPCPU-PORT
ADMPCPU-TRAY

FCC COMPLIANCE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

EQUIPMENT MODIFICATION CAUTION: Equipment changes or modifications not expressly approved by Sensormatic Electronics Corporation, the party responsible for FCC compliance, could void the user's authority to operate the equipment and could create a hazardous condition.

Other Declarations

Thank you for using American Dynamics products. We support our products through an extensive and worldwide network of dealers. The dealer, through whom you originally purchased this product, is your point of contact if you have a need for service or support. Our dealers are fully empowered to provide the very best in customer service and support. Dealers should contact American Dynamics at (800) 507-6268 or (561) 912-6259 or on the web at www.americandynamics.net.

WARRANTY DISCLAIMER: Sensormatic Electronics Corporation makes no representation or warranty with respect to the contents hereof and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose.

NOTICE: The information in this manual was current when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.

LIMITED RIGHTS NOTICE: For units of the Department of Defense, all documentation and manuals were developed at private expense and no part of it was developed using Government Funds. The restrictions governing the use and disclosure of technical data marked with this legend are set forth in the definition of “limited rights” in paragraph (a) (15) of the clause of DFARS 252.227.7013. Unpublished - rights reserved under the Copyright Laws of the United States.

TRADEMARK NOTICE: *American Dynamics* and *Sensormatic* are trademarks or registered trademarks of Sensormatic Electronics Corporation. Other product names mentioned herein may be trademarks or registered trademarks of Sensormatic or other companies.

COPYRIGHT: Under copyright laws, the contents of this manual may not be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine-readable form, in whole or in part, without prior written consent of Sensormatic Electronics.

WJM 01/2009

APPENDIX A: End User License Agreement

IMPORTANT – READ CAREFULLY: THIS END-USER LICENSE AGREEMENT ("EULA") IS A LEGAL AGREEMENT BETWEEN YOU ("LICENSEE"), AND SENSORMATIC ELECTRONICS CORPORATION ("TYCO") FOR THE TYCO SOFTWARE ACCOMPANYING THIS EULA, WHICH INCLUDES COMPUTER SOFTWARE AND MAY INCLUDE MEDIA, PRINTED MATERIALS, AND "ON-LINE" OR ELECTRONIC DOCUMENTATION (COLLECTIVELY, THE "SOFTWARE PRODUCT"). BY INSTALLING, COPYING, OR OTHERWISE USING THE SOFTWARE PRODUCT, YOU AGREE TO BE BOUND BY THE TERMS OF THIS EULA. IF YOU DO NOT AGREE TO THE TERMS OF THIS EULA, DO NOT INSTALL, USE, DISTRIBUTE IN ANY MANNER, OR REPLICATE IN ANY MANNER, ANY PART, FILE OR PORTION OF THE SOFTWARE PRODUCT.

1. SCOPE OF LICENSE

The SOFTWARE PRODUCT is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. All title and intellectual property rights in and to the SOFTWARE PRODUCT (including but not limited to any images, photographs, and text incorporated into the SOFTWARE PRODUCT), the accompanying printed materials, and any copies of the SOFTWARE PRODUCT, are owned by Tyco and/or its suppliers. The SOFTWARE PRODUCT is licensed, not sold. You may not copy the printed materials accompanying the SOFTWARE PRODUCT. All title and intellectual property rights in and to the content, which may be accessed through use of the SOFTWARE PRODUCT, are the property of the respective content owner and are protected by applicable copyright or other intellectual property laws and treaties. This EULA grants you no rights to use such content. All rights not expressly granted under this EULA are reserved by Tyco and its suppliers.

2. GRANT OF LICENSE

This EULA grants you the following rights:

a. Locally Stored Components. The SOFTWARE PRODUCT may include a software code component that may be stored and operated locally on one or more devices. Once you have provided all required license fees for these devices (as determined by Tyco in its sole discretion), you may install and/or use one copy of such component of the SOFTWARE PRODUCT on each of the devices as licensed by Tyco. You may then use, access, display, run, or otherwise interact with ("use") such component of the SOFTWARE PRODUCT in connection with operating the device on which it is installed solely in the manner set forth in any accompanying documentation or, in the absence of such, solely in the manner contemplated by the nature of the SOFTWARE PRODUCT.

b. Remotely Stored Components. The SOFTWARE PRODUCT may also include a software code component for operating one or more devices remotely. You may install and/or one copy of such component of the SOFTWARE PRODUCT on a remote storage device on an internal network with all of the devices and may operate such component with each device over the internal network solely in the manner set forth in any accompanying documentation or, in the absence of such, solely in the manner contemplated by the nature of the SOFTWARE PRODUCT; provided however, you must still acquire the required number of licenses for each of the devices with which such component is to be operated.

c. Embedded Software. The SOFTWARE PRODUCT may also include a software code component that is resident in a device as provided by Tyco for operating that device. You may use such component of the SOFTWARE PRODUCT solely in connection with the use of that device, but may not retrieve, copy, or otherwise transfer that software component to any other media or device without Tyco's express prior written authorization.

d. Backup Copy. You may make a back-up copy of the SOFTWARE PRODUCT (other than embedded software) solely for archival purposes, which copy may only be used to replace a component of the SOFTWARE PRODUCT for which you have a current valid license. Except as expressly provided in this EULA, you may not otherwise make copies of the SOFTWARE PRODUCT, including the printed materials.

3. OTHER RIGHTS AND LIMITATIONS

a. Limitations on Reverse Engineering and Derivative Works. You may not reverse engineer, decompile, or disassemble the SOFTWARE PRODUCT, and any attempt to do so shall immediately terminate this license - except and only to the extent that such activity may be expressly permitted by applicable law notwithstanding this limitation. You may not make any changes or modifications to any portion of the SOFTWARE PRODUCT, or create any derivative works, without the written permission of an officer of Tyco. You may not remove any proprietary notices, marks or labels from the SOFTWARE PRODUCT. You shall institute reasonable measures to ensure Compliance with the terms and conditions of this EULA.

b. Copyright Notices. You must maintain all copyright notices on all copies of the SOFTWARE PRODUCT.

c. Transfer. You may only transfer your rights under this EULA 1) as part of a permanent sale or transfer of all of the devices for which the SOFTWARE PRODUCT is licensed as applicable; 2) you transfer all of the SOFTWARE PRODUCT (including all component parts, the media and printed materials, any upgrades and this EULA), 3) you do not retain any copies of any portion of the SOFTWARE PRODUCT; the recipient agrees to the terms of this EULA; and 4) if the SOFTWARE PRODUCT is an upgrade, any transfer must also include all prior versions of the SOFTWARE PRODUCT. You agree that failure to meet all of these conditions renders such transfer null and void.

d. Termination. Without prejudice to any other rights, Tyco may terminate this EULA if you fail to comply with the terms and conditions herein. In such event, you must

immediately destroy all copies of the SOFTWARE PRODUCT and all of its component parts.

e. Subsequent EULA. Tyco may also supersede this EULA with a subsequent EULA pursuant to providing you with any future component, release, upgrade, or other modification or addition to the SOFTWARE PRODUCT. Similarly, to the extent that the terms of this EULA conflict with any prior EULA or other agreement between you and Tyco regarding the SOFTWARE PRODUCT, the terms of this EULA shall prevail.

f. Trademarks. This EULA does not grant you any rights in connection with any trademarks or service marks of Tyco, its affiliates, or its suppliers.

g. Rental. You may not rent, lease or lend the SOFTWARE PRODUCT. You may not make it available to others or post it on a server or web site.

4. EXPORT RESTRICTIONS

You agree that you will not export or re-export any portion of the SOFTWARE PRODUCT, or any direct product thereof (the foregoing collectively referred to as the "Restricted Components"), to any country, person or entity subject to U.S. export restrictions. You specifically agree not to export or re-export any of the Restricted Components (i) to any country to which the U.S. has embargoed or restricted the export of goods or services, which currently include, but are not necessarily limited to Cuba, Iran, Iraq, Libya, North Korea, Sudan and Syria, or to any national of any such country, wherever located, who intends to transmit or transport the Restricted Components back to such country; (ii) to any person or entity who you know or have reason to know will utilize the Restricted Components in the design, development or production of nuclear, chemical or biological weapons; or (iii) to any person or entity who has been prohibited from participating in U.S. export transactions by any federal agency of the U.S. government. You warrant and represent that neither the U.S. Commerce Department, Bureau of Export Administration nor any other U.S. federal agency has suspended, revoked or denied your export privileges.

5. U.S. GOVERNMENT RESTRICTED RIGHTS

The SOFTWARE PRODUCT is Commercial Computer Software provided with "restricted rights" under Federal Acquisition Regulations and agency supplements to them. Any use, duplication or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFAR 255.227-7013 et. seq. or 252.211-7015, or subparagraphs (a) through (d) of the Commercial Computer Software Restricted Rights at FAR 52.227-19, as applicable, or similar clauses in the NASA FAR Supplement. Contractor/manufacturer is Sensormatic Electronics Corporation, One Town Center Road, Boca Raton, FL 33486.

6. CHOICE OF LAW

This Software License Agreement is governed by the laws of the State of Florida and the parties hereby irrevocably agree that they submit themselves to the personal jurisdiction of the state and federal courts of Florida for purposes of resolving any and all disputes arising under or related to these terms and conditions.

7. LIMITED WARRANTY

a. "AS IS" WARRANTY. TYCO PROVIDES THE SOFTWARE "AS IS" WITHOUT WARRANTY, EXPRESS, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, LACK OF VIRUSES, AND LACK OF NEGLIGENCE OR LACK OF WORKMANLIKE EFFORT. ALSO, THERE IS NO WARRANTY OR CONDITION OF TITLE, QUIET ENJOYMENT, OR NONINFRINGEMENT. THE ENTIRE RISK ARISING OUT OF THE USE OR PERFORMANCE OF THE SOFTWARE PRODUCT IS WITH YOU. TYCO DOES NOT WARRANT THAT THE OPERATION OF THE SOFTWARE PRODUCT WILL BE UNINTERRUPTED OR ERROR FREE. TYCO DOES NOT WARRANT THAT THE SOFTWARE PRODUCT WILL MEET YOUR REQUIREMENTS OR THAT OPERATION OF THE SOFTWARE PRODUCT WILL BE UNINTERRUPTED OR ERROR-FREE. TYCO SHALL NOT BE RESPONSIBLE FOR PROBLEMS CAUSED BY CHANGES IN THE OPERATING CHARACTERISTICS OF THE DEVICE(S) UPON WHICH THE SOFTWARE PRODUCT IS OPERATING, OR FOR PROBLEMS IN THE INTERACTION OF THE SOFTWARE PRODUCT WITH NON-TYCO SOFTWARE OR HARDWARE PRODUCTS. TYCO NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON PURPORTING TO ACT ON ITS BEHALF TO MODIFY OR TO CHANGE THIS WARRANTY, NOR TO ASSUME FOR IT ANY OTHER WARRANTY OR LIABILITY CONCERNING THIS SOFTWARE PRODUCT.

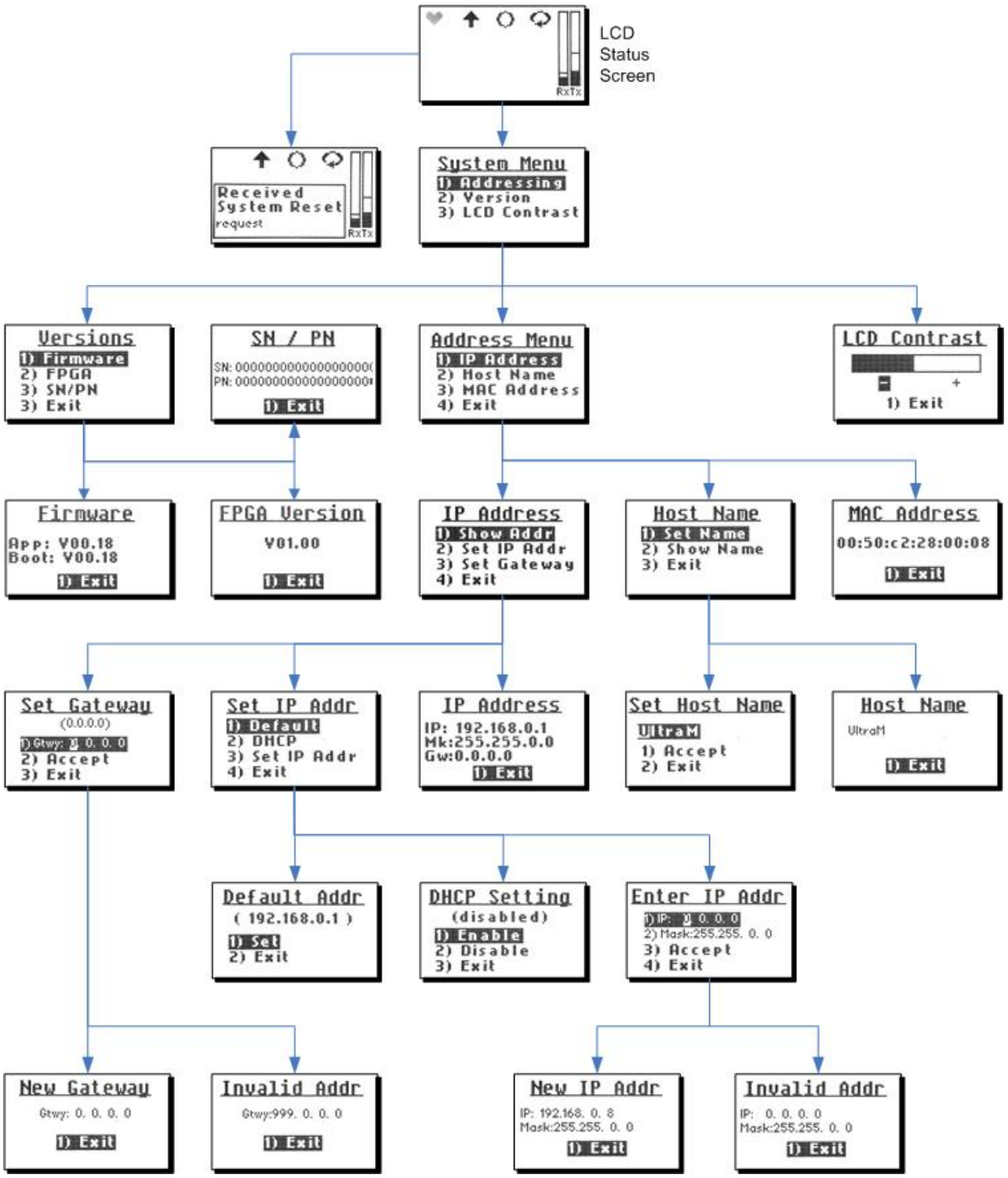
b. LIMITATION OF LIABILITY. UNDER NO CIRCUMSTANCES SHALL TYCO BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, DIRECT OR INDIRECT DAMAGES BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR ANY OTHER LEGAL THEORY. SUCH DAMAGES INCLUDE, BUT ARE NOT LIMITED TO, LOSS OF PROFITS, LOSS OF THE SOFTWARE PRODUCT OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF SUBSTITUTE OR REPLACEMENT EQUIPMENT, FACILITIES OR SERVICES, DOWN TIME, PURCHASERS TIME, THE CLAIMS OF THIRD PARTIES, INCLUDING CUSTOMERS, AND INJURY TO PROPERTY. IN ANY EVENT, IF ANY STATUTE IMPLIES WARRANTIES OR CONDITIONS NOT STATED IN THIS EULA, TYCO'S ENTIRE LIABILITY UNDER ANY PROVISION OF THIS LICENSE AGREEMENT SHALL BE LIMITED TO THE AMOUNT ACTUALLY PAID BY YOU TO LICENSE THE SOFTWARE PRODUCT. BECAUSE SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

APPENDIX B: MegaPower CPU System Defaults

- **IP Address** – 192.168.0.1
- **Subnet Mas**k – 255.255.0.0
- **Default Gateway** – 0.0.0.0
- **Host Name** – UltraMP
- **Port Configurations** – Ports 1 **–** 32
  - **Type** – Keyboard
  - **Baud Rate** – 1200 bps
  - **Parity** – None
  - **Data Bits** – 8
  - **Stop Bits** – 1
  - **Location** – Blank
- **Salvo** – None created
- **Tour** – None created
- **Event Timer** – None created
- **Alarms** – One contact table predefined; no others created
- **Alarm Messages** – None created
- **Email messages** – None created
- **Definitions – Cameras** – None created
- **Definitions – Keyboards** – None created
- **Definitions – Keyboard/User Priorities** – None created
- **Satellite Sites** – None created
- **Partitions – Cameras to Monitors** – Full access
- **Partitions – Cameras to Keyboards** – Full access
- **Partitions – Keyboards to Monitors** – Full access
- **Partitions – Keyboards to Satellites** – Full access

APPENDIX C: MegaPower CPU Front Panel LCD Menu Structure

This appendix illustrates the hierarchy of screens that can be accessed on the MegaPower CPU liquid-crystal display (LCD).



APPENDIX D: Port Number Assignments

The MegaPower CPU IP port source and destination port numbers must be programmed; otherwise, communication with external devices will not occur.

Purpose	Protocol	MPCPU Port	PC Port	Description
Activity Logging[1]	TCP[3]	514	Any	Used as a server to listen for requests asking to initiate activity logging. These requests are normally sent from the activity logging client. Once a request is received and the connection is established, the port is used as the source for sending the activity logging data.
EASY CPU[1]	UDP[4]	4001	Any	Used to communicate (to the EASY CPU or any other such program) all available status or information data. This port works as a server where each received request produces one or more replies to the requesting client (usually to the EASY CPU).
Snapshot[1]	UDP[4]	Any	69	Used for sending JPEG images taken from a camera. Uses TFTP (Trivial File Transfer Protocol) for image transfer.
Setting Time/ Firmware Upgrade[1]	UDP[4]	69	Any	Used to set or retrieve MPCPU calendar time. Uses TFTP (Trivial File Transfer Protocol) for the calendar time data transfer.
NTP[2]	UDP[4]	123	123	NTP (Network Time Protocol) provides time synch between the MPCPU and network systems.
Alarm Email[2]	TCP[3]	Any	25	This port of the server to which the MPCPU sends Email messages in response to an alarm.
IP Address Assignment[2]	UDP[4]	68	67	Port 68 (source) assigns the IP address and is used for DHCP when enabled. Port 67 Bootstrap Protocol Server (destination) is the listening port on boot and DHCP servers. Clients broadcast to this port for boot or network parameters.

Notes:

[1] MPCPU specific

[2] Network specified

[3] TCP (Transmission Control Protocol)

[4] UDP (User Datagram Protocol).

APPENDIX E: Auxiliary Key Code Functions

The following special function keys enable you, using the keyboard, to manually operate and control cameras.

F1 Special Function Keys

Function	Action
F1	Releases keyboard control of video trunk
1-F1	Unlocks the current camera
2-F1	Locks the current camera
4-F1	Take snapshot of currently selected monitor and store on a remote IP server
19-F1	Flip Camera 180°
21-F1	Run Pattern 1
22-F1	Run Pattern 2
23-F1	Run Pattern 3
29-F1	Ping Dome(1)
30-F1	Reset Dome
31-F1	Go to start of Pattern 1(1)
32-F1	Go to start of Pattern 2(1)
33-F1	Go to start of Pattern 3(1)

Function	Action
41-F1	Auto Repeat Pattern 1
42-F1	Auto Repeat Pattern 2
43-F1	Auto Repeat Pattern 3
44-F1	Run Apple Peel Pattern(1)
69-F1	Return to Auto Iris/Auto Focus
70-F1	Set Aux 4 Off
71-F1	Set Aux 4 On
99-F1	Logoff from passcode Logon

Note:

(1) For SensorNet and RS-422 domes connected via Direct Connection only.

F2 Special Function Keys

Function	Action
1-F2	Sets on-screen Time and Date display ON
2-F2	Sets on-screen Time and Date display OFF
3-F2	Sets Camera Title, Number, & Status display ON
4-F2	Sets Camera Title, Number, & Status display OFF
5-F2	Displays titles & date/time at the top of the screen
6-F2	Displays titles & date/time at the bottom of the screen
7-F2	Sets on-screen Time, Date, & Title display ON
8-F2	Sets on screen Time, Date, & Title display OFF
21-F2	Sets date format to month-day-year (MM-DD-YY)
22-F2	Sets date format to day-month-year (DD-MM-YY)
23-F2	Sets date format to year-month-day (YY-MM-DD)

Function	Action
24-F2	Steps through date formats
38-F2	Enter/Exit Line Lock phase adjustment mode
39-F2	Enter/Exit Line Lock phase adjustment mode (same as 38-F2)
41-F2	Sets date format to month-day-year (MM-DD-YY)
42-F2	Sets date format to day-month-year (DD-MM-YY)
43-F2	Sets date format to year-month-day (YY-MM-DD)
44-F2	Steps through date formats
45-F2	Disables bell at keyboard for all RS-232 ports
46-F2	Enables bell at keyboard for all RS-232 ports
47-F2	Disables bell signal transmissions to selected keyboard
48-F2	Enables bell signal transmissions to selected keyboard

Function	Action
55-F2	Entering this key combination implies that you will also enter another 2-digit F2 code combination within three seconds: 99-F2 - System Reset or 98-F2 – Reset to Factory Defaults
60-F2	Displays current day of week
61-F2	Sets day of week to Sunday
62-F2	Sets day of week to Monday
63-F2	Sets day of week to Tuesday
64-F2	Sets day of week to Wednesday
65-F2	Sets day of week to Thursday
66-F2	Sets day of week to Friday
67-F2	Sets day of week to Saturday
70-F2	Momentarily displays software version number as “V - - -” in the camera title field of the selected monitor
91-F2	Changes which unit is Active
92-F2	Writes app data (cameras selected on keyboards and other info) to Flash. Entering 92-F2 ten seconds before a front panel reset eliminates the need to resynchronize cameras to monitors
93-F2	Loads the dynamically defined character set to the BVOM
98-F2	Used in combination with 55-F2 to reset the MPCPU to factory defaults, except the direct port settings. This function does nothing by itself.
99-F2	Used in combination with 55-F2 to reset the MPCPU. This function does nothing by itself.
100-F2	Sets video loss mode to OFF for the called camera
101-F2	Sets video loss mode to SYNC ONLY for camera
102-F2	Sets video loss mode to VIDEO LOW for camera
103-F2	Sets video loss mode to VIDEO MED for camera
104-F2	Sets video loss mode to VIDEO HIGH for camera
105-F2	Sets video loss mode automatically for called camera
106-F2	Sets DBVL mode for all cameras automatically and transfers settings to the CPUs to synchronize databases
107-F2	Updates video loss mode settings of all cameras from matrix switcher to the Video Loss Detection module
108-F2	Clears the video loss mode for all cameras
109-F2	Downloads video loss mode of called camera from VLD module to matrix switcher
110-F2	Transfers video loss mode of all cameras from VLD module to matrix switcher
120-F2	End Pattern Definition
121-F2	Define Pattern 1
122-F2	Define Pattern 2
123-F2	Define Pattern 3
130-F2	Save New Pattern
131-F2	Clear Pattern 1
132-F2	Clear Pattern 2
133-F2	Clear Pattern 3
200-F2	Frees remote PTZ slots
202-F2	Resets all Alarms
300-F2	Displays current arming code for selected monitor
301-F2	SSI Monitor Arming(1)
302-F2	SSA Monitor Arming(1)
303-F2	SSM Monitor Arming(1)
304-F2	SHI Monitor Arming(1)
305-F2	SHA Monitor Arming(1)
306-F2	SHM Monitor Arming(1)
307-F2	BSI Monitor Arming(1)
308-F2	BSA Monitor Arming(1)
309-F2	BSM Monitor Arming(1)
310-F2	BHI Monitor Arming(1)
311-F2	BHA Monitor Arming(1)
312-F2	BHM Monitor Arming(1)
313-F2	DHI/DSI Monitor Arming(1)
314-F2	DHA/DSA Monitor Arming(1)
315-F2	DHM/DSM Monitor Arming(1)
316-F2	Disarm Monitor
317-F2	Enable Manual Override
318-F2	Disable Manual Override
998-F2	Transfer Macro from keyboard to system
999-F2	Transfer Macro from system to keyboard

Note:

(1) For an explanation of monitor arming codes, refer to **APPENDIX I: Monitor Arming Codes** on page 76.

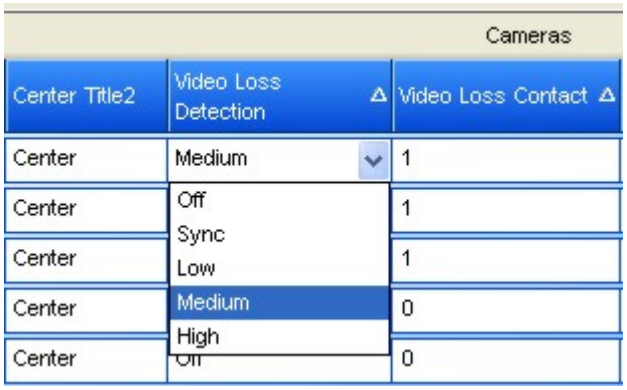
APPENDIX F: Configuring Video Loss Detection

The following procedure describes how to configure the MegaPower CPU for video loss detection using EASY CPU.

Caution: As you progress through this configuration, ensure that the video loss contact assignments do not conflict with or duplicate the actual physical contacts.

1. With EASY CPU started, go to the Definitions – Cameras screen to define your cameras.
2. In the upper screen section, click on the Video Loss Detection field in the row for the camera you want to define, and then click on the scroll arrow to display the dropdown menu.

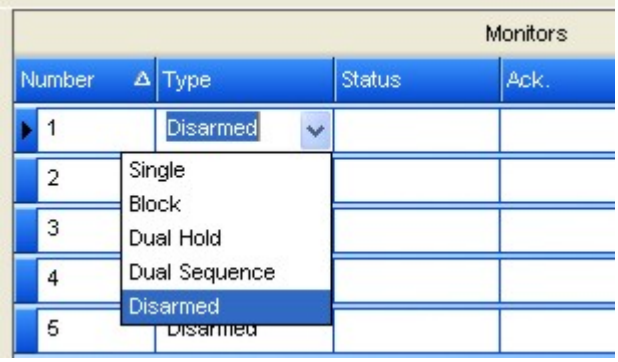
Figure 138. Video Loss Detection dropdown menu



3. Choose one of the following from the dropdown menu:
   - **Off** – Video loss detection not enabled
   - **Sync** – To detect the presence or loss of the synchronized portion of the video signal
   - **Low** – To detect low picture content
   - **Medium** – To detect medium picture content
   - **High** – To detect high picture content

   Note: The video signal is not measured as a signal peak-to-peak value. The **Low**, **Medium**, and **High** selections indicate the degree of video complexity being detected.
4. Go to the Alarms – Monitors screen and define your monitors.
5. Go to the Alarms – Alarm Messages screen and create your alarm messages. You can create up to 128 messages. Refer to **Alarm Messages** on page 42 for more information.
6. Go to the Alarms – Email Messages screen and set up your Email addresses and messages. You can create up to 16 messages. Refer to **Email Messages** on page 42 for more information.
7. Go to the Alarms – Contact Definitions screen and define the contacts, including the associated alarm and Email messages. Refer to **Creating Alarm Monitor/ Contact Tables** on page 40 for more information.
8. Go back to the Definitions – Cameras screen. In the Alarm Number field, assign contact numbers for video loss detection to the desired cameras.
9. Go to the Alarms – Monitors screen, and do the following:
   - In the lower section of the screen, click on the Contact Arming tab, and specify the contacts to be associated with each monitor.
   - In the upper screen section, click on the Type field in the row for the monitor you want to define, and then click on the scroll arrow to display the dropdown menu.

Figure 139. Video loss Type dropdown menu



Choose one of the following types of monitors from the dropdown menu:

- **Single –** incoming alarms are displayed on a single monitor. Multiple alarms received at a single monitor will be either sequenced or held based on the monitor's alarm queuing method. For an explanation of alarm queuing methods, refer to **APPENDIX H: Monitor Arming Methods** on page 74.

- **Block –** incoming alarms are displayed on a block (group) of monitors with which they are associated. The first incoming alarm is displayed on the first (lowest numbered) monitor of the block. The second alarm is displayed on the next lowest numbered monitor of the block, and so on. When all monitors in a given block are displaying alarm video signals, all subsequent alarms are either held in queue or sequenced until the displayed alarms are cleared depending on the monitor alarm queuing method.
- **Dual Hold –** an incoming alarm is displayed and held on the first of the pair of monitors until cleared. All subsequent alarms are queued in order on the second monitor until the current held alarm is cleared from the first monitor. As alarms are cleared off the first monitor, the *stacked* alarms on the second monitor are then transferred to the first monitor.
- **Dual Sequence –** an incoming alarm is displayed and held on the first of the pair of monitors until cleared. All subsequent alarms are queued in order on the second monitor until the current held alarm is cleared from the first monitor. As alarms are cleared off the first monitor, the *sequenced* alarms on the second monitor are transferred to the first monitor.
- **Disarmed –** The monitor does not receive alarms.

Note: For information on defining the other fields in the Alarms – Monitors screen, see **Adding Monitor Definitions** on page 37.

10. In the System – Port Configuration screen, configure the RS-232 ports for video loss detection. To do this, define the port(s) as video loss detection (1–1024), (1025–2048), (2049–3072), and/or (3073–3200) corresponding with the number of video loss detection modules installed and the range of cameras being monitored.

APPENDIX G: Alarm Programming Overview

An **alarm** is a signal generated by an external device connected to the MegaPower CPU system, either directly or through an alarm interface unit. External alarm signals can be generated in different ways, such as opening a locked door or window or detecting a moving object. In this guide, all types of alarm signals are referred to as **alarm contacts**. The system can be programmed to respond to up 4,096 alarm contacts.

Alarm Receipt

The MegaPower CPU receives external alarm contact signals via RS-232 communications from alarm interface units and/or external computers emulating the alarm codes. To process alarm contacts, each port connected to an RS-232 alarm input device must be set up for Port Use of Alarm.

Alarm Arming and Response

All alarm response actions operate by associating cameras and monitors with alarm contacts. Monitors are referred to as “armed” when this association is made. When a monitor is armed for an alarm contact, the camera video associated with that alarm contact is displayed when the alarm is received. Individual cameras or camera Salvos, each with Preset views and auxiliary action, can be called automatically to armed monitors or armed monitor blocks in response to alarm receipt.

Cameras and monitors must be armed for alarm response if they are to provide automatic video call-up to monitors. This includes associating alarm contacts with both cameras and monitors and specifying an Arming Code for each monitor.

Three steps are required to arm the system for alarm response:

1. Associating alarm contacts with cameras

   Each alarm contact must be associated with a camera or a camera Salvo for automatic call-up when an alarm is received. Each camera or camera Salvo can be associated with more than one alarm contact number, allowing multiple views of a scene to be called up when an alarm occurs.

   When camera Salvos are associated with alarm contact numbers for call-up, monitor blocks (groups of monitors) must be associated with the same alarm contact numbers to display the full set of cameras defined in the Salvo.

2. Associating alarm contacts with monitors

   Each alarm contact must be associated with a monitor or a monitor block for call-up when an alarm occurs. Each monitor or monitor block can be associated with more than one alarm contact number, allowing multiple alarms to be queued and sequenced on a single monitor or block of monitors.

   When alarm contact numbers are associated with monitor blocks, they must be associated with the first monitor of a block only.

3. Arming the Monitors (see **APPENDIX H: Monitor Arming Methods** for detailed information)

   Monitors are armed using a monitor arming code that identifies the following:

   - Alarm Display Method (either Single, Block, or Dual).
   - Alarm Queuing Method (either Sequence or Hold).
   - Alarm Clearance Method (either Instant, Auto, or Manual).

   Multiple alarm arming methods may be used to provide flexible responses to alarms.

Alarm Display Indicators

During the period in which an alarm is active and being displayed on an armed monitor, the monitor status line shows the uppercase word “ALARM.” If a camera Salvo is called in response to an alarm, the monitor displaying the first camera of the Salvo shows the word “ALARM” in its status line and monitors displaying the remaining cameras of the Salvo show the word “SALVO” in their status lines.

APPENDIX H: Monitor Arming Methods

The monitor arming code identifies the alarm display, queuing, and clearance methods for the monitors.

Note: Refer to **APPENDIX I: Monitor Arming Codes** for a detailed explanation of each monitor arming code.

Alarm Display Method

The alarm display method specifies the way that alarm video is displayed on multiple armed monitors.

Three different methods can be created:

- **Single** – The camera video associated with an alarm is displayed on one monitor specified to display it. Multiple alarms received for the same monitor are held in a queue for display in accordance with the queuing method.
- **Block** – The camera video associated with an alarm is displayed on the block of monitors specified to display it. The video for the first alarm received is placed on the first monitor in the block (the lowest numbered monitor). The video for the second alarm is placed on the second monitor and so forth through the last monitor of the block. When all monitors are displaying the alarms and no alarms have been cleared, subsequent alarms are held in queue for display in accordance with the queuing method.
- **Dual** – The camera video associated with an alarm is displayed on two monitors specified to display it. One monitor is defined as a **Hold monitor**; the other monitor is defined as a **Sequence monitor**. The Hold monitor displays and holds the first alarm received (Hold Queuing). Subsequent alarms are queued for display on the Sequence monitor (Sequence Queuing). Once an alarm is cleared from the Hold monitor, the next alarm queued on the Sequence monitor moves to the Hold monitor.

Alarm Queuing Method

The alarm queuing method defines the way the armed monitor handles multiple alarms. An alarm contact must be associated with at least one camera and one monitor, and at least one monitor must be armed.

When an alarm is received, the system creates an alarm queue entry for every monitor or group of monitors associated to the alarm contact. If an alarm contact is not associated with at least one camera and one monitor, it is ignored.

The two alarm queuing methods are Sequence and Hold.

- **Sequence** – The camera video associated with each queued alarm is displayed on the armed monitor in sequence with a programmed dwell time between each alarmed video until cleared by the system. The dwell time between each camera video display is programmable for each alarm contact number.
- **Hold** – The camera video associated with the first alarm received is displayed and held on the armed monitor. Subsequent alarms are held in a queue. After the first alarm held on the monitor is cleared, the next queued alarm is displayed and held on the armed monitor until cleared. All alarms are displayed in chronological order.

Alarm Clearance Method

The alarm clearance method defines the way an alarm is cleared (removed) from the system. Clearing an alarm returns armed monitors to their original states.

Alarms are cleared using any of five methods: Instant Clear, Auto Clear, Manual Clear, Instant No Ack, and Auto No Ack.

- **Instant Clear** – This method clears the alarm automatically when the alarm condition returns to a non-alarming state. For example, a door alarm may activate when the door opens and return to a non-alarming state when the door closes. Instant Clear clears the alarm when the door closes.
- **Auto Clear** – This method clears the alarm automatically 20 seconds after the alarm condition returns to a non-alarming state. Using the example above, the alarm would activate when the door opens and return to a non-alarming state 20 seconds after the door closes. This 20-second delay is intended to catch any momentary-type alarms. If the alarm contact returns to a non-alarming state and then alarms again—both within the 20 seconds—the alarm remains in the system without being cleared.

- **Manual Clear** – This method relies on an operator clearing it via a keyboard or after the alarm contact number is called to the monitor. All alarms remain queued on their respective monitors until the alarm is manually cleared.
- **Instant No Ack** – This method instantly clears the alarm when the alarm condition returns to a non-alarming state. No operator acknowledgement is permitted.
- **Auto No Ack** – This method clears the alarm automatically 20 seconds after the alarm condition returns to a non-alarming state. No operator acknowledgement is permitted.

Note: If an alarm is armed for more than one monitor, clearing it on any armed monitor will clear it from all armed monitors.

If the Dual alarm display is method is used, operators must call the Hold monitor in order to manually clear the alarm.

APPENDIX I: Monitor Arming Codes

Monitor Arming Codes identify the alarm display, queuing, and clearance methods for armed monitors, as well as the arm type (an abbreviated code that displays on the monitor when an alarm occurs).

The following arming codes are available.

Single Display, Sequence Queuing

- **SSI** – Single alarm monitor, all alarms are queued and sequenced. Alarms are cleared when the alarm closures is restored (Instant).
- **SSI A** – Single alarm monitor, all alarms are queued and sequenced. Alarms are cleared when the alarm closure is restored or when the user clears the alarm (Instant or Manual).
- **SSA** – Single alarm monitor, all alarms are queued and sequenced. Alarms are cleared 20 seconds after the alarm closure is restored (Automatic).
- **SSA A** – Single alarm monitor, all alarms are queued and sequenced. Alarms are cleared 20 seconds after the alarm closure is restored or when the user clears the alarm (Automatic or Manual).
- **SSM** – Single alarm monitor, all alarms are queued and sequenced. Alarms are cleared only when the operator clears the alarm (Manual).

Single Display, Hold Queuing

- **SHI** – Single alarm monitor, all alarms are queued, and the first alarmed contact is displayed and held until cleared. Alarms are cleared when the alarm closure is restored (Instant).
- **SHI A** – Single alarm monitor, all alarms are queued, and the first alarmed contact is displayed and held until cleared. Alarms are removed from the queue when the alarm closure is restored or when the user clears the alarm (Instant or Manual).
- **SHA** – Single alarm monitor, all alarms are queued, and the first alarmed contact is displayed and held until cleared. Alarms are removed from the queue 20 seconds after the alarm closure is restored (Automatic).
- **SHA A** – Single alarm monitor, all alarms are queued, and the first alarmed contact is displayed and held until cleared. Alarms are removed from the queue 20 seconds after the alarm closure is restored or when the user clears the alarm (Automatic or Manual).
- **SHM** – Single alarm monitor, all alarms are queued, and the first alarmed contact is displayed and held until cleared. Alarms are removed from the queue only when the operator clears the alarm (Manual).

Block Display, Sequence Queuing

- **BSI** – Multiple monitor alarm block, all alarms are queued and displayed on monitors with no existing alarms. When all monitors have alarms, alarms sequence evenly on all monitors. Alarms are removed from the queue when the alarm closure is restored (Instant).
- **BSI A** – Multiple monitor alarm block, all alarms are queued and displayed on monitors with no existing alarms. When all monitors have alarms, alarms sequence evenly on all monitors. Alarms are removed from the queue when the alarm closure is restored or when the user clears the alarm (Instant or Manual).
- **BSA** – Multiple monitor alarm block, all alarms are queued and displayed on monitors with no existing alarms. When all monitors have alarms, alarms sequence evenly on all monitors. Alarms are removed from the queue 20 seconds after the alarm closure is restored (Automatic).
- **BSA A** – Multiple monitor alarm block, all alarms are queued and displayed on monitors with no existing alarms. When all monitors have alarms, alarms sequence evenly on all monitors. Alarms are removed from the queue 20 seconds after the alarm closure is restored or when the user clears the alarm (Automatic or Manual).
- **BSM** – Multiple monitor alarm block, all alarms are queued and displayed on monitors with no existing alarms. When all monitors have alarms, alarms sequence evenly on all monitors. Alarms are removed from the queue only when the operator clears the alarm (Manual).

Block Display, Hold Queuing

- **BHI** – Multiple monitor alarm block, all alarms are queued and displayed on monitors with no existing alarms. Monitors display and hold the first alarmed contacts. Alarms are removed from the queue when the alarm closure is restored (Instant).
- **BHI A** – Multiple monitor alarm block, all alarms are queued and displayed on monitors with no existing alarms. Monitors display and hold the first alarmed contacts. Alarms are removed from the queue when the alarm closure is restored or the user clears the alarm (Instant or Manual).
- **BHA** – Multiple monitor alarm block, all alarms are queued and displayed on monitors with no existing alarms. Monitors display and hold the first alarmed contacts. Alarms are removed from the queue 20 seconds after the alarm closure is restored (Automatic).
- **BHA A** – Multiple monitor alarm block, all alarms are queued and displayed on monitors with no existing alarms. Monitors display and hold the first alarmed contacts. Alarms are removed from the queue 20 seconds after the alarm closure is restored or when the user clears the alarm (Automatic or Manual).
- **BHM** – Multiple monitor alarm block, all alarms are queued and displayed on monitors with no existing alarms. Monitors display and hold the first alarmed contacts. Alarms are removed from the queue only when the operator clears the alarm (Manual).

Dual Display, Hold and Sequence Queuing

- **DHI/DSI** – Two alarm monitors, the first alarm is displayed on the Hold (DHI) monitor, and all subsequent alarms are queued and sequenced on the Sequence (DSI) monitor. Alarms are removed from the Sequence monitor queue when the alarm closure is cleared. When the alarm closure on the Hold monitor is cleared, the oldest alarm contact on the Sequence monitor is moved to the Hold monitor and removed from the Sequence monitor (Instant).
- **DHI A/DSI A** – Two alarm monitors, the first alarm is displayed on the Hold (DHI) monitor, and all subsequent alarms are queued and sequenced on the Sequence (DSI) monitor. Alarms are removed from the Sequence monitor queue when the alarm closure is cleared instantly or when the operator clears the alarm. When the alarm closure on the Hold monitor is cleared instantly, or cleared by the operator, the oldest alarm on the Sequence monitor is moved to the Hold monitor and removed from the Sequence monitor (Instant or Manual).
- **DHA/DSA** – Two alarm monitors, the first alarm is displayed on the Hold (DHI) monitor. All subsequent alarms are queued and sequenced on the Sequence (DSI) monitor. All subsequent alarms are queued and sequenced on the Sequence monitor. Alarms are removed from the Sequence monitor queue 20 seconds after the alarm clears. When the alarm closure on the Hold monitor is clears, and 20 seconds has expired, the oldest alarm contact on the Sequence monitor is moved to the Hold monitor and removed from the Sequence monitor (Automatic)
- **DHA A/DSA A** – Two alarm monitors, the first alarm is displayed on the Hold (DHI) monitor, and all subsequent alarms are queued and sequenced on the Sequence (DSI) monitor. All subsequent alarms are queued and sequenced on the Sequence monitor. Alarms are removed from the Sequence monitor queue 20 seconds after the alarm closure is cleared or when the operator clears the alarm. When the alarm closure on the Hold monitor is cleared and 20 seconds has expired, or the alarm is cleared by the operator, the oldest alarm on the Sequence monitor is moved to the Hold monitor and removed from the Sequence monitor (Automatic or Manual).
- **DHM/DSM** – Two alarm monitors, the first alarm is displayed on the Hold (DHI) monitor, and all subsequent alarms are queued and sequenced on the Sequence (DSI) monitor. All subsequent alarms are queued and sequenced on the Sequence monitor. Alarms are removed from the Sequence monitor queue only when the operator clears the alarm. When the alarm on the Hold monitor is cleared, the oldest alarm on the Sequence monitor is moved to the Hold monitor and removed from the Sequence monitor (Manual).

APPENDIX J: Alarm Arming Notes

Associating Alarms with Camera Salvos

Each alarm contact can be associated with a camera Salvo for call-up when the alarm is received. To call a Salvo, the alarm contact number should be associated with a monitor block that contains enough monitors to display all of the cameras in the Salvo. If not, the cameras at the end of the Salvo with no matching monitors will not be shown.

Several alarm response actions are restricted when Salvos are called to a monitor block:

- If the first monitor of the block is enabled for Manual Clear, the operator must call that monitor to clear the alarm.
- During display in either Sequence or Hold method, the operator must call the first monitor of the block displaying the Salvo in order to shift the Salvo back.

Associating Alarms with Monitor Blocks

Each alarm contact can be associated with a block of monitors to display alarm video. Monitor blocks permit the distribution of multiple alarms over several monitors for simultaneous viewing.

Consider the following when associating alarms with monitor blocks:

- The desired monitor block(s) must be defined first.
- The Monitor Arming Code for each monitor in a block must be set to a Block code.
- The alarm clearance method for the block is set by the arming code for the first monitor of the block only.
- The queuing method can be set as desired for each monitor of the block.
- Associate alarm contacts with the first monitor of the monitor block only.

Monitor Block Queuing for Single Cameras

No restrictions exist on the type of alarm queuing used in a block when alarm contacts are associated with single camera call-ups only (not Salvos). Both Block Sequence and Hold queuing methods can be intermixed within a block to provide varied viewing patterns.

Monitor Block Queuing for Camera Salvos

Monitor blocks are required to be able to view all cameras when Salvos are associated with alarms. Block Sequence and Hold queuing can be mixed in a monitor block with the following restrictions:

- To arm a monitor block for Hold queuing with Salvos, arm all monitors in the block to Block Hold.
- To arm a monitor block for Sequence queuing with Salvos, arm the first monitor of the block for Block Sequence and the remaining monitors in the block for Block Hold.
- Multiple Salvos can be programmed for simultaneous Sequence display within a monitor block. First, identify separate, contiguous subsets of monitors for Salvo displays. Then, arm the first monitor of each subset to Sequence and arm the remaining monitors in each subset to Hold. All subsets should contain a sufficient number of monitors to display the largest Salvo that could be called to this block.

Auxiliary and Preset Alarm Call-ups

Multiple alarm contacts can be associated with the same camera using different auxiliary and Preset views. If more than one of the alarm contacts is received during the same time period, the system will activate each Preset or auxiliary for the same camera in the order the alarms are received (stopping at the Preset or auxiliary of the last alarm contact received). In this instance, the operator may not see the first Preset or auxiliary action(s).

Wired Alarm Contact Sets

Continuous alarm contacts can be grouped into Wired sets. All contiguous Wired alarm contact numbers are activated when any alarm contact of the set is received. Each alarm contact number in the set is then handled as a separate, active alarm for the monitor to which it is armed in accordance with the arming code defined for each monitor.

- If the associated monitor is armed for Instant or Auto clear, then each alarm in the set is cleared automatically when the source alarm is cleared.
- If the associated monitor is armed for Manual clear, each alarm in the set must be manually cleared.

APPENDIX K: Satellite Configuration Overview

A satellite system is a network of two or more MegaPower 3200 video-matrix CCTV systems linked by video and data communications. You can link up to 30 individual MegaPower 3200 video-matrix CCTV systems into a satellite network.

Satellite systems are often used where multiple systems are needed in separate buildings or rooms, such as large multi-building corporate complexes, manufacturing facilities, college campuses, hospitals, and casinos.

Each satellite site communicates and shares video according to how you program it. You can enable operators at any one site to access the cameras and monitors at any other site. You can also restrict access to sites, as well as to certain cameras within certain sites.

Satellite sites are programmed as either *local* or *remote* sites.

- A *local* site refers to features that are accessible within a single site by the keyboard attached to that site's MegaPower CPU.
- A *remote* site refers to features of other MegaPower CPU sites in a satellite network that are accessible from the local system.

Depending on the individual site connections (unidirectional or bidirectional), each site may be a source site, a receiving site, or both.

For illustrations of unidirectional and bidirectional connections between sites, refer to the following:

- **Typical Satellite System Connections – Two Sites, Unidirectional** on page 81.
- **Typical Satellite System Connections – Two Sites, Bidirectional** on page 82.

These sites are further defined as follows:

- **Source Site** – a satellite site that provides video trunk outputs to other sites.
- **Receiving Site** – a satellite site that receives video trunk inputs from other sites.
- **Source and Receiving** – a satellite site that both provides video trunk outputs to other sites and receives video trunk inputs from other sites

Setting Up Satellite Sites

Satellite system operations require specific setup procedures at each site in the satellite network before any remote functions can be performed.

At every site in a satellite network you can enable User IDs, create a site number, and perform other programming functions to enable or disable sharing.

The following local setup procedures are required for satellite (remote) operations.

- **Verify Satellite Site Connections –** Before starting system setup, verify the RS-232 communications links for control commands between sites and video trunk lines for video transmission between sites. For installation and connection procedures, refer to the *MegaPower CPU Installation Guide*, 8200-0421-01.
- **Identify the local Site Number –** Assign each site in a satellite network a unique site number. The site number is required for addressing purposes when commands and data are transmitted. Site numbers for the MegaPower CPU system range from 1 to 30.
- **Identify the Local RS-232 Data Communications Link to Other Sites –** At every site, define all RS-232 port data interfaces from the local site to each remote site. This is accomplished through the Port Communications function in the setup software.
- **Identify the Local Video Trunk Inputs –** At a receiving site, define all video trunk inputs to the local site from each remote site. In addition, program a remote site title for each video trunk input.

  Note: This title is displayed on the monitor when that site is called from a keyboard.

  If the MegaPower CPU system is equipped with Video Loss Detector modules, set each video trunk input loss detection to OFF.

- **Set Local Access Restrictions –** Access restrictions must be placed on specific resources at the local site to prevent interference with satellite operations.
  - At the source site, set user access to the video trunk monitor outputs to "N" (access denied) for all local keyboards.
  - At a receiving site, operators not requiring access to a remote site can be denied access to the trunk lines having camera access partitioning. The system administrator can set the camera access to "N" (access denied) for those operators.
  - At a receiving site, set any desired restrictions for individual local keyboard access to individual remote sites.
  - At each site, set any desired optional restrictions for individual local keyboard, monitor, and camera access.
- **Record Local Satellite Site Connections –** Use the **Satellite Site Connections** table on page 80 to record all links between the local site and all remote sites that are connected to it.

Satellite Site Connections

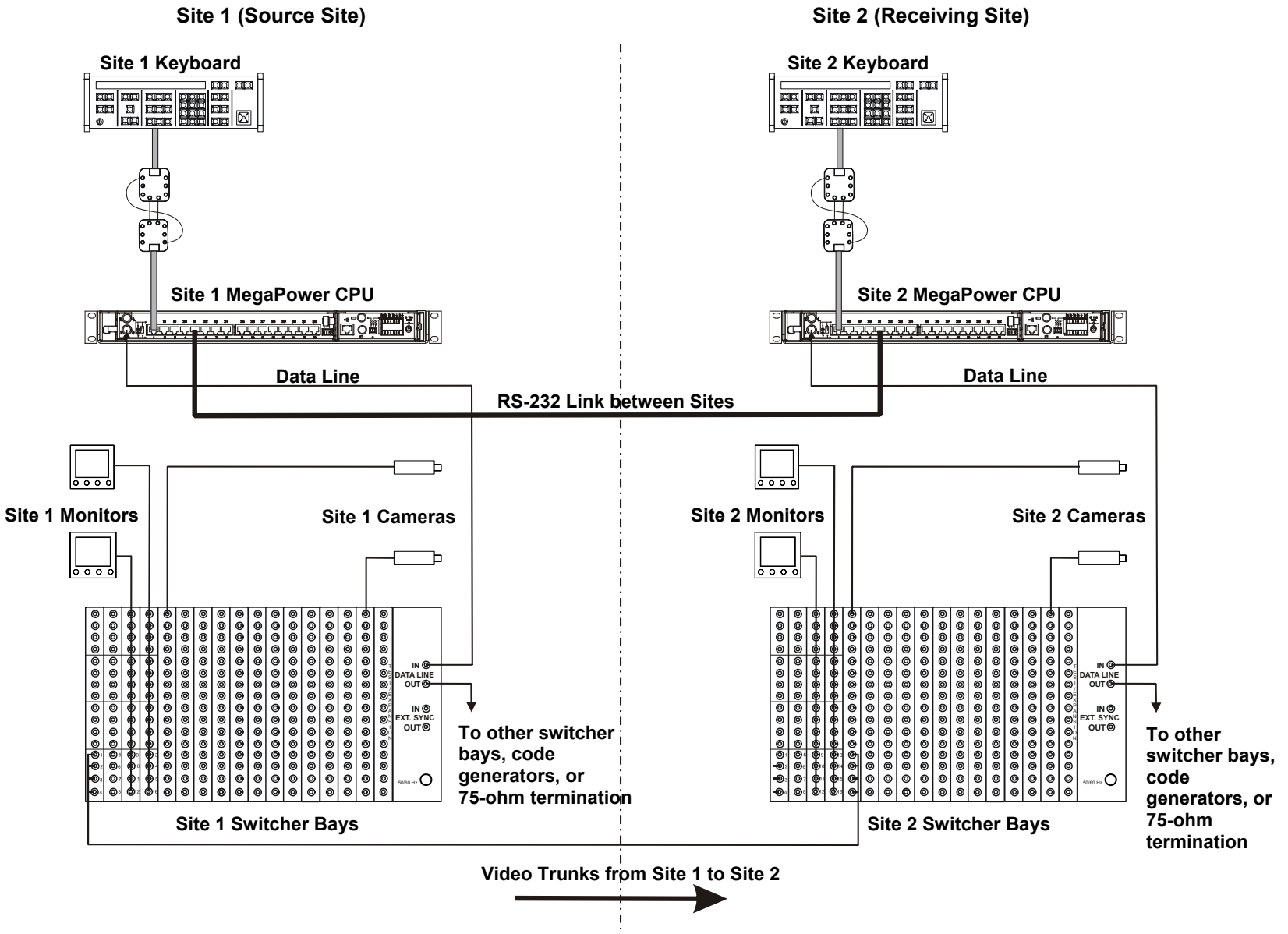
Record all local site RS-232 and video trunk satellite (remote) system connections in the tables below. A set of tables should be filled out for each site in a satellite network to identify all connections to and from other sites.

Local Site Number: _____

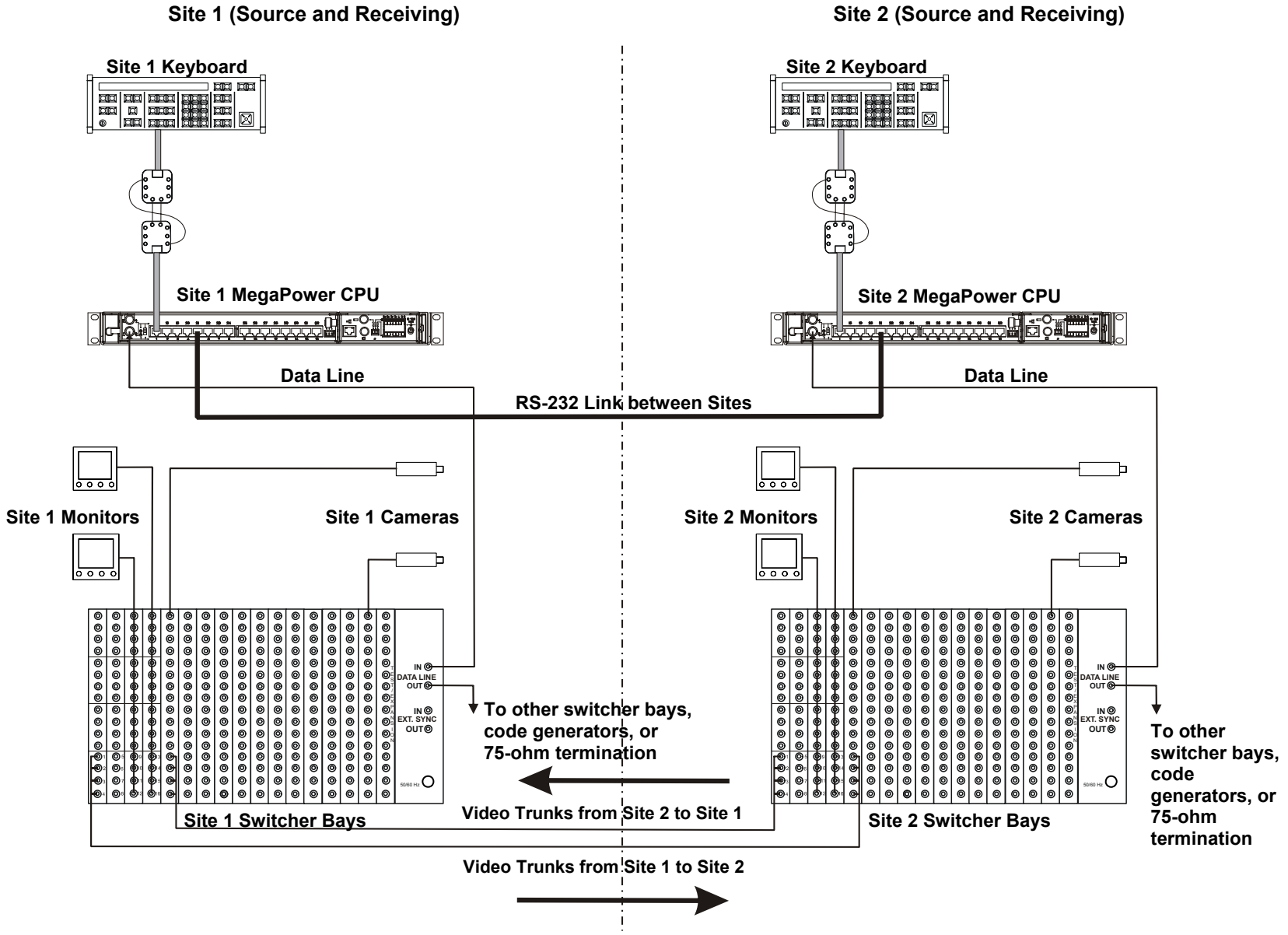
RS-232 Data Ports	Local Port	Remote Site	Remote Port
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

Video trunk Lines	Local Cam (input)	Remote Site	Remote Mon (output)
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

Typical Satellite System Connections – Two Sites, Unidirectional


Site 1 (Source Site)
Site 2 (Receiving Site)
Site 1 Keyboard
Site 2 Keyboard
Site 1 MegaPower CPU
Site 2 MegaPower CPU
Data Line
Data Line
RS-232 Link between Sites
Site 1 Monitors
Site 1 Cameras
Site 2 Monitors
Site 2 Cameras
IN DATA LINE OUT
IN EXT. SYNC OUT
To other switcher bays, code generators, or 75-ohm termination
To other switcher bays, code generators, or 75-ohm termination
Site 1 Switcher Bays
Site 2 Switcher Bays
Video Trunks from Site 1 to Site 2

Typical Satellite System Connections – Two Sites, Bidirectional


Site 1 (Source and Receiving)
Site 2 (Source and Receiving)
Site 1 Keyboard
Site 2 Keyboard
Site 1 MegaPower CPU
Site 2 MegaPower CPU
Data Line
Data Line
RS-232 Link between Sites
Site 1 Monitors
Site 1 Cameras
Site 2 Monitors
Site 2 Cameras
IN DATA LINE OUT
IN EXT. SYNC OUT
To other switcher bays, code generators, or 75-ohm termination
Video Trunks from Site 2 to Site 1
Site 1 Switcher Bays
Site 2 Switcher Bays
To other switcher bays, code generators, or 75-ohm termination
Video Trunks from Site 1 to Site 2

Please visit our website for more information

www.americandynamics.net

© 2009 Tyco International Ltd. and its Respective Companies
Product specifications subject to change without notice.
Certain product names mentioned herein may be trade names
and/or registered trademarks of Tyco or other companies.

8200-0421-03 G